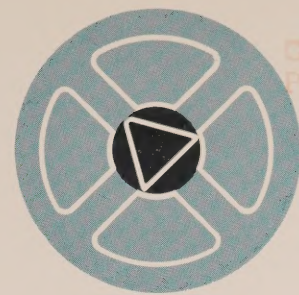
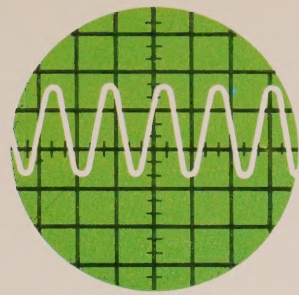
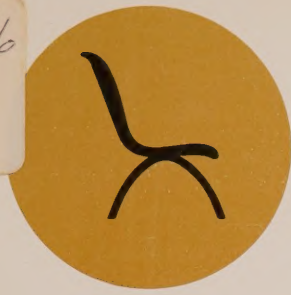




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FOR SCHOOLS FROM CANADA

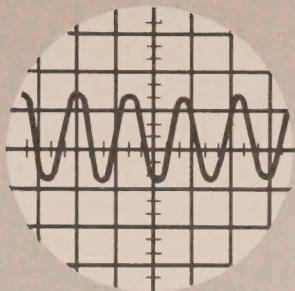
Canada, Trade and Commerce Dept
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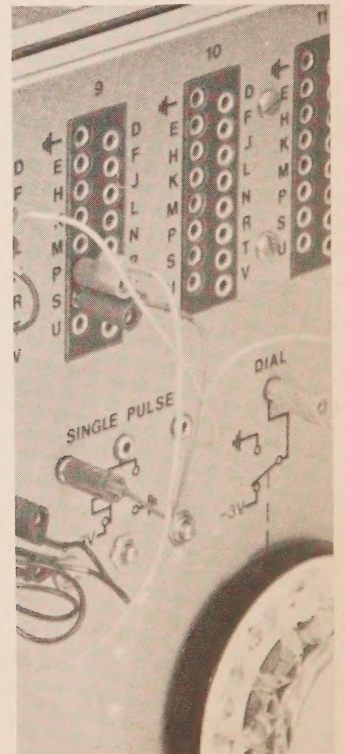
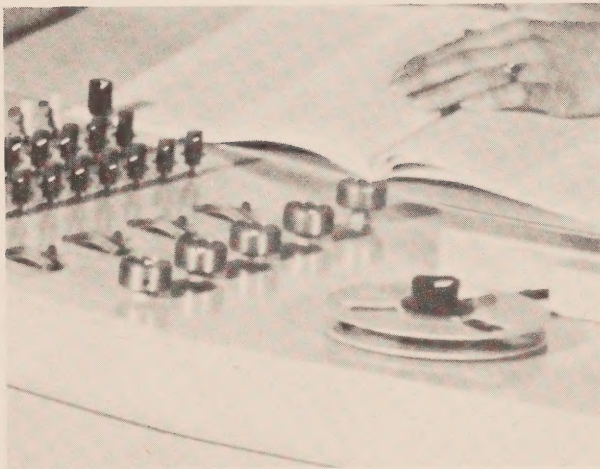
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FOR SCHOOLS FROM CANADA

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SETTING STANDARDS IN SCHOOLS

Educational equipment and furnishings from Canada, engineered and developed by leading Canadian companies, are setting standards in schools throughout the world.

Recognized for their sophisticated design, expert workmanship and operational efficiency, these quality products have found favorable acceptance in elementary and high schools, industrial and vocational shops, as well as in universities and other educational institutions at home and abroad.

With excellent research facilities, Canadian companies continually co-operate with educators in Canada and the United States to develop equipment and teaching aids that will enable students to master the complexities of modern technology.

This booklet, produced by the Department of Trade and Commerce in co-operation with the Canadian educational equipment and furnishings industry, briefly describes the diverse range of products available for schools from Canada.

Further information on these products may be obtained from the Canadian trade office listed on the outside back cover of this booklet or by writing directly to the company concerned.

Most of the firms in this publication are seeking representation abroad and will welcome inquiries from buyers and other interested businessmen.



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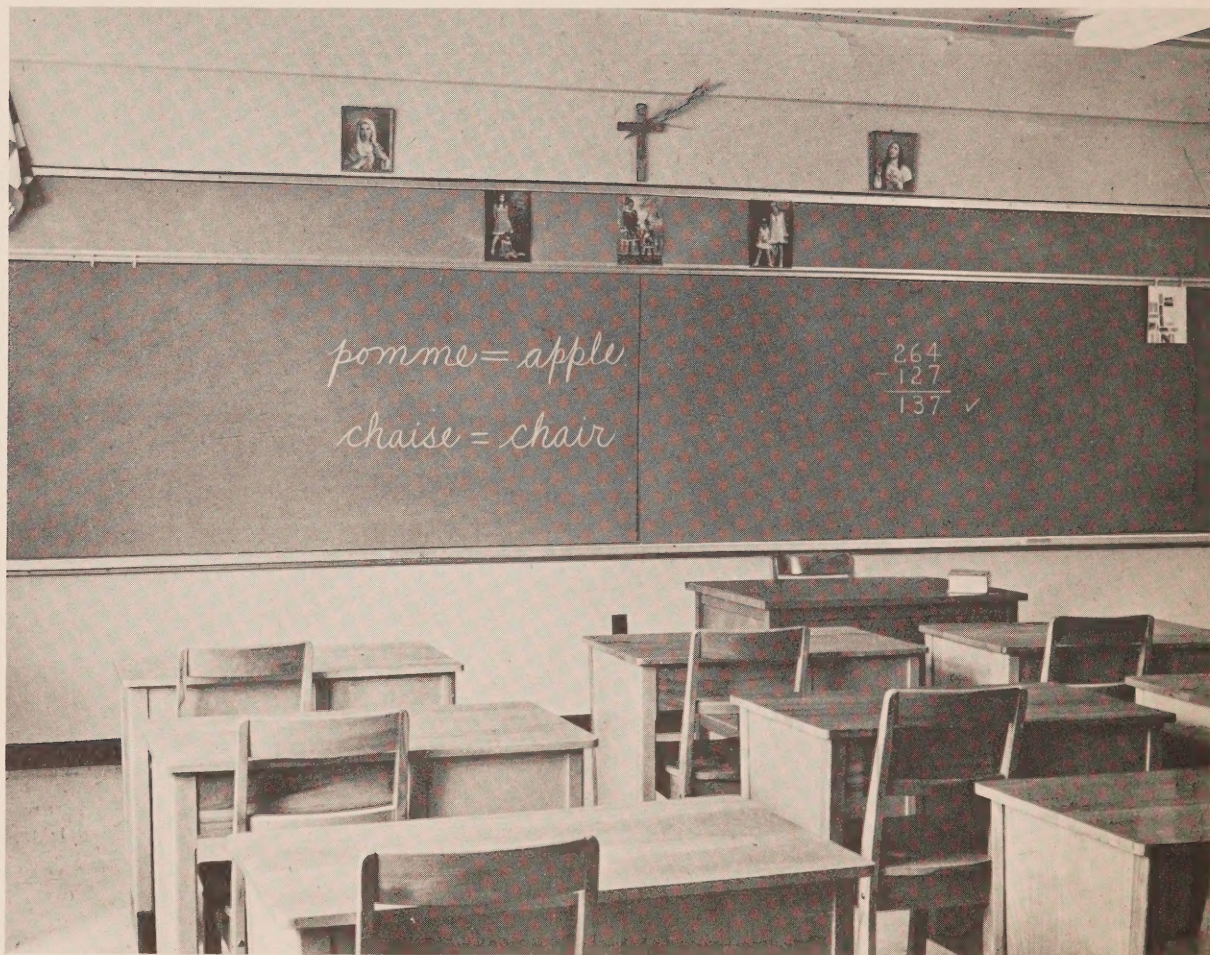


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SCHOOL FURNISHINGS AND FIXTURES



Delta chalkboard and cork bulletin boards by Bertile

chalkboards and tackboards

Seamless chalkboards, as large as four feet (1.22 m) in height and 16 feet (4.88 m) in length are produced by Delta Division of Bertile Products Inc.

Specializing in chalkboards and tackboards for 30 years, the company is proud to have its products used in more than 5,000 schools in Canada and some Latin American countries. Using the finest of raw materials, Delta teaching aids are made from water-resistant chipboard, tempered hardboard or porcelain enamel which are laminated under heat and pressure to a zinc-treated steel backing. Coated with resins and baked in automatic infra-red ovens, Delta chalkboards are easy to maintain and retain their brightness when washed with clear water. The chalkboards are produced in $\frac{1}{4}$ inch (6.35 mm) and $\frac{1}{2}$ inch (12.7 mm) thicknesses.

Thinners and detergents will remove paint spots, wax crayon stains, lipstick smears and nail polish without damaging the chalkboard's surface.

Three types of satin-finished, extruded aluminum trims are sold by Bertile Products — the screw type, affixed with countersunk cadmium-plated screws on the trim facing; and the slip and offset types where screws enter the backing of the trim only and are hidden from view after installation. The slip and offset trims require no wall preparation.

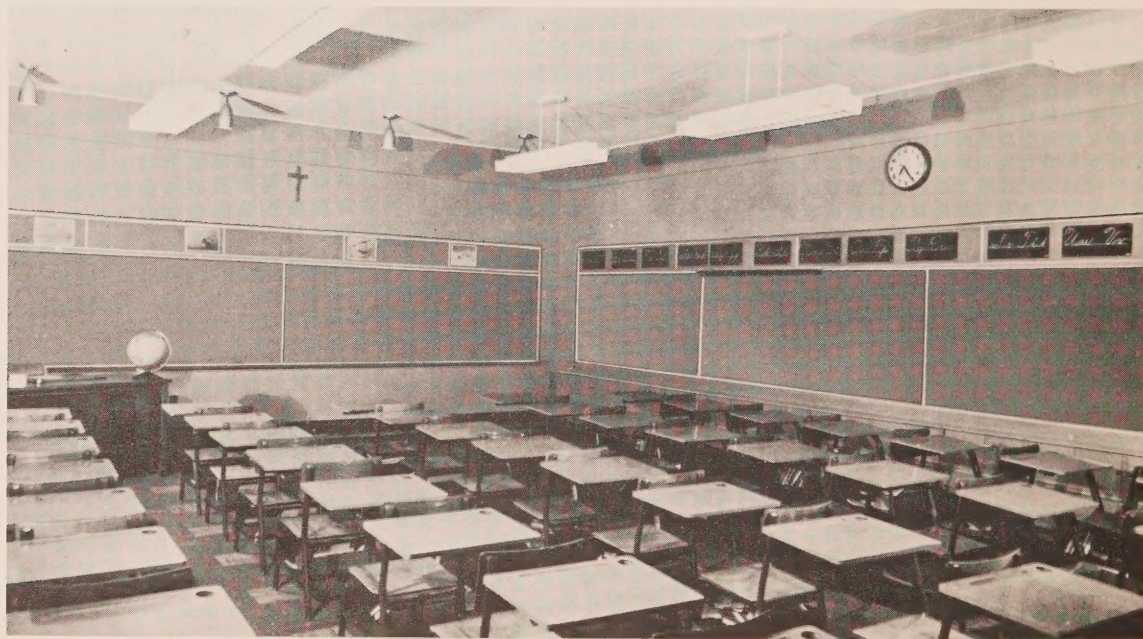
Bertile's products include a variety of wallboards, adaptable for use in various locations. All units may be purchased ready framed for easy assembly. Chalk-rails, paper clips, sliding map hooks and winders, and other accessories can be added at any time.

Every Delta product carries an unconditional guarantee, with quick delivery to anywhere in the world assured.

BERTILE PRODUCTS INC.

Delta Division

P.O. Box 42, Drummondville, Quebec, Canada



Duracron chalkboard by Canadian Blackboard

chalkboards and tackboards

High quality chalkboards and tackboards, produced in sheets or ready framed units, have been the specialty of Canadian Blackboard Company Limited since 1937. More than 6,000,000 square feet (557,400 m²) of chalkboards have been installed in educational centers throughout Canada by the company.

Of the five non-glare chalkboard finishes available, Duracron — guaranteed for 30 years — is the most durable: eight coats of acrylic Duracron paint are baked in two separate operations on a 24-gauge bonderized steel base. Like the standard porcelain and acrylic resin finishes that are guaranteed for 20 years, the Duracron chalkboard does not chip or crackle, has an excellent writing surface and retains its original color for life.

Flexboard asbestos and masonite finishes are less costly but still superior in quality to most other boards in the same category. They carry a 10-year guarantee. Chalktrays are molded from S-50 aluminum alloy extruded and anodized to a satin finish for easy cleaning.

A handy roll-away model of Duracron or masonite comes in three sizes and is equipped with two writing surfaces or one writing and one tackboard surface. It can also be made to individual customer requirements. Framed in oak or aluminum and mounted on a reinforced, four-wheeled stand, the roll-away board may be locked firmly in any position on the stand while in use. All chalkboards are available in either black or green.

Canadian Blackboard also produces handsome tackboards to post bulletins and show school artwork, as well as display cabinets to exhibit trophies. The tacking surface is ¼-inch (6.35 mm) cork laminated onto chipboard or masonite of equal thickness to provide many years of service. The company's cabinets are constructed of strong, anodized aluminum and can be fitted with hinged doors or noiseless, sliding glass panels. These units also carry a generous guarantee.

CANADIAN BLACKBOARD COMPANY LIMITED

30 Montee des Bouleaux, St. Constant, Co. Laprairie, Quebec, Canada



COSF Woodline series double pedestal desk



Dormitory furniture by COSF

institutional furniture

With more than 125 years' experience in its field, Canadian Office & School Furniture, Limited is in an excellent position to supply the needs of any educational institution for any kind of quality furniture.

The company, founded in 1838, manufactures auditorium and free-standing seating, lounge, library, administration and faculty furniture, teachers' desks and dormitory equipment, in steel or wood or in combinations of these materials.

A major feature of the company's business is its concentration on contract orders. Backed by a staff of highly qualified designers and craftsmen, the company manufactures to customer specifications and will provide plans for complete installations.

An example of the clean, functional lines of COSF products is dormitory furniture made of birch, with removable plastic laminate tops. This was designed to the order of a Canadian university. Similar units can be made to suit any other customer's specific needs in any other desired material.

COSF can supply a very wide range of furniture from stock.

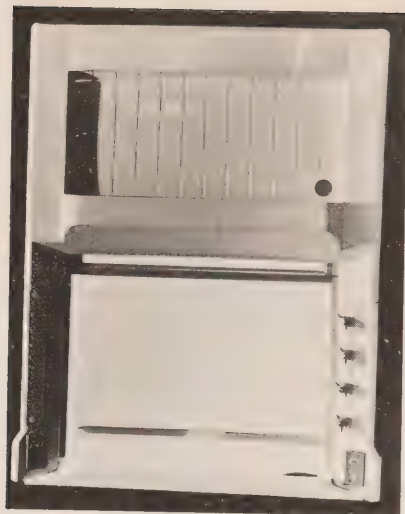
Included in its fine wood furniture for libraries are charging desks, shelving, tables, chairs and card catalog cabinets, racks, stands, book trucks, atlas and dictionary stands. They provide convenient shelving, light touch trucking, accurate and fast filing and relaxed seating comfort.

Auditorium and lecture room seating features fiberglass multiple seating with tablet arms in seven colors. Upholstered auditorium chairs with tilt-up seats are also available.

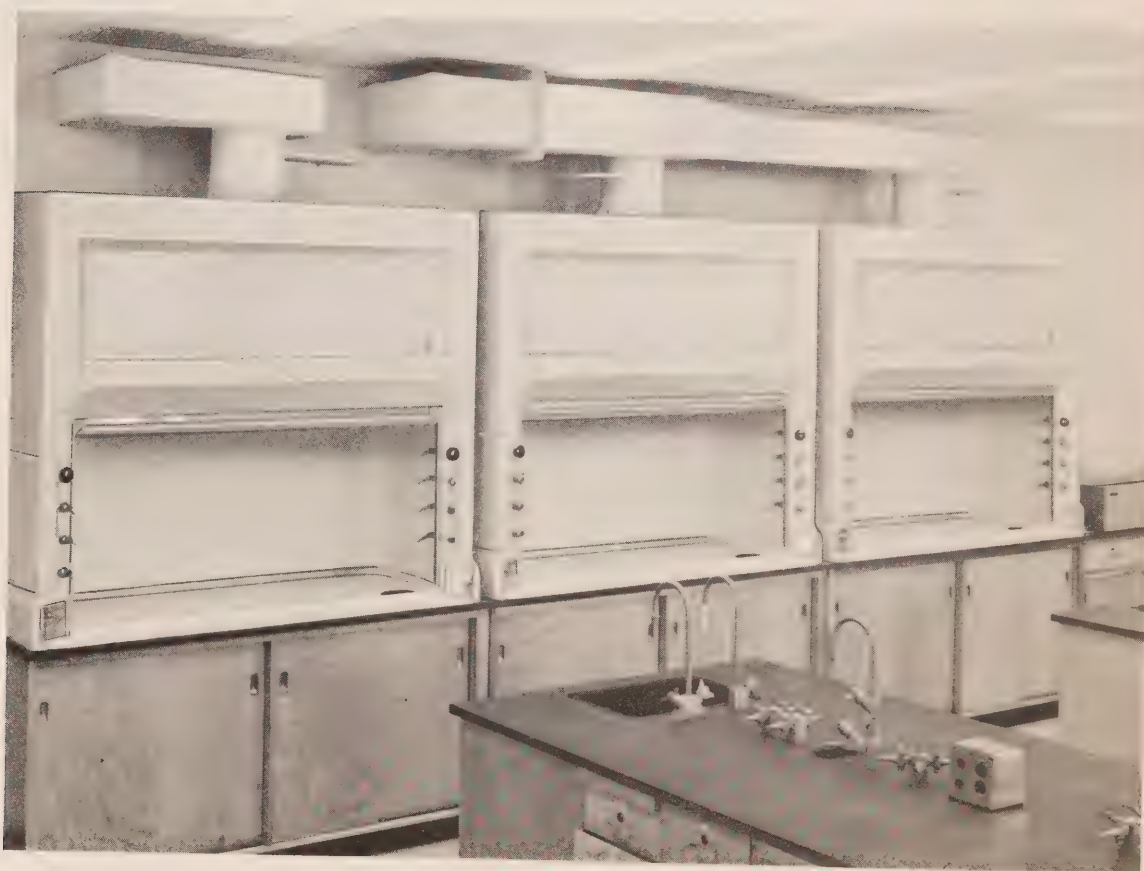
Faculty storage units and study carrels are available with continuous desks and pedestal chairs. In a teacher's lectern desk, the lectern folds away into the top of the desk when not needed.

CANADIAN OFFICE & SCHOOL FURNITURE, LIMITED

927 King Street, Preston, Ontario, Canada



Century's model CFH 472 fiberglass laboratory fume hood



Century's model CFH 704 fiberglass laboratory fume hoods

laboratory fume hoods

The smooth one-piece fiberglass construction of laboratory fume hoods developed by Century Fiberglass Marketing Ltd. is the practical result of sound engineering and aerodynamic principles.

A unique design and an exacting choice of materials — backed by thorough testing at numerous installations across Canada — guarantee maximum efficiency and long life for all Century fume hoods. They range from the 35-inch (889 mm) CFH 351 semi-portable model to the 70-inch (1,778 mm) CFH 710 walk-in distillation unit.

Ideal for use where space is limited, the economical CFH 351 can be mounted on any standard laboratory base unit, and on temporary installations exhaust fumes pass through flexible spiral tubing to an existing fume vent or window outlet.

Century's CFH 704 fume hood, a university and industrial favorite, allows two technicians to work at the same time since the remote controlled services — for water, gas, steam, air or vacuum — and the cup sinks can be mounted on both sides. The CFH 704 is 70 inches (1,778 mm) wide, 29½ inches (749.3 mm) deep and 60 inches (1,524 mm) high.

All company fume hoods have double walls of high flexural and impact strength; they feature a unique air bypass system and air proportion damper for maximum effective air flow and constant exhaust volume, regardless of the position of the laminated safety-glass sash. There is no metal in the units to corrode, even the screws and bolts are nylon. Installation is quick and simple: all fume hoods are shipped factory assembled, prewired and are approved by the Canadian Standards Association.

Century Fiberglass also manufactures explosion-proof fume hoods, induced-air or auxiliary-air models for air conditioned laboratories, and others for radioactive applications in "hot labs". The radioactive models meet the recommendations set out by the Atomic Energy Control Board of Canada. Details and drawings of these models for special applications can be provided on request.

CENTURY FIBERGLASS MARKETING LTD.

4235 - 16th Street South East, Calgary, Alberta, Canada



Garcy's free-standing library unit



Garcy's study carrel

flexible metal furnishings

One of Canada's largest manufacturers of slotted, adjustable shelving units and free-standing continuous display fixtures for department and chain stores has now developed modern metal furnishings for schools and libraries.

Ever since its establishment in 1946, Garcy Company of Canada Limited has steadily progressed until now its highly competent staff operates in a modern 40,000-square-foot (3,176 m²) plant.

The flexible, modular features of Garcy's commercial designs are incorporated in the company's study carrel and library system. The streamlined and efficient study carrel is free-standing, can be erected without tools, and enlarged simply by adding interlocking open stock sections. Once assembled, the unit can be leveled easily.

The study carrel includes a desk, drawer, desk light, shelf with dividers and book ends. These are all mounted on heavy-duty adjustable brackets fitted to slotted steel partition frames. Slim in appearance, the metal frames are made of heavy gauge material to withstand abuse and support large weights.

Garcy's sturdily built yet stylish looking library system with fold-down integral shelf brackets provides maximum protection against handling and damage to books and manuscripts. The free-standing units can be set up individually, in rows or along perimeter walls; they are easy to assemble and dismantle.

The company's extensive technical facilities include complete induction and projection welding equipment, and automatic gas ovens for baking the enameled finishes.

Garcy brackets and metal shelving systems are made from 13 gauge cold-rolled steel and are available in baked enamel or electroplated zinc finishes. The satin or mat finishes are chip resistant, non-stainable and easily washable with detergents or soap and water.

GARCY COMPANY OF CANADA LIMITED

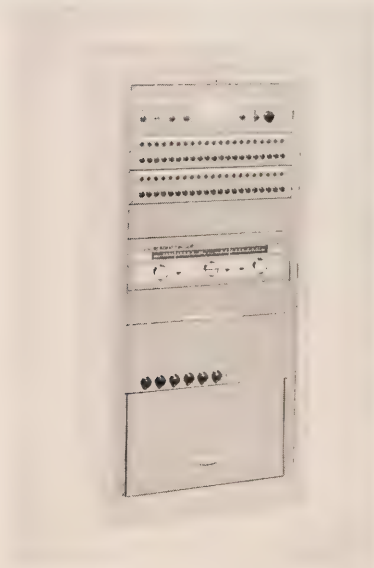
42 Dufflaw Road, Toronto 19, Ontario, Canada



Multi-Vox model GA-35 general purpose hi-fi amplifier



Student residence automatic exchange by Multi-Vox



Multi-Vox school system master console



Vandal alarm system master central control by Multi-Vox

communications systems

Wired point-to-point communications for virtually any conceivable use have been the specialties of Multi-Vox Limited for more than 20 years. In the educational field, the company has perfected an expandable multi-purpose system providing a limitless combination of services for any school lay-out.

The Multi-Vox school system features modular units and is built around a master control station. This includes separate intercom and program amplifiers, tuner, record reproducer, selector, annunciator panels, control and power panels and all necessary accessories. Standard units, available in either floor or desk models, incorporate 15 to 63 circuits, with higher capacities on request.

The system provides all essential services: two-way communication, program distribution, emergency all-call, and selective paging. It can also be used to receive, and re-transmit throughout the school, programs originating in the gymnasium or auditorium.

Table top auxiliary controls, which duplicate most of the functions of the master control, are also available. Where the master control is not assigned to a school administrator, one or more "Principal's units" may be installed to give the user facilities of the master control.

Other units include sub-stations using either separate or integrated control switches. Ceiling or wall column speakers, horns for outdoor use, and a complete line of remote microphones are among the accessories available.

A new development by the company is a vandal alarm system. This provides detection and control by one operator at one central point allowing as many as 30 or 40 schools to be kept under surveillance. The unit detects entry by automatically recording a difference in noise level. Flashing and buzzer alarms are incorporated.

Several Multi-Vox products have been chosen by the Canadian government-sponsored National Design Council to bear the Canada Design '67 Catalogue product label. The company maintains rigid controls over design specifications and product testing and all its products have been given the Canadian Standards Association official seal of approval.

MULTI-VOX LIMITED

9967 St. Michel Boulevard, Montreal 39, Quebec, Canada



Norman Wade's series 2 standard drafting desk showing board mobility provided by Radius Tension balancing principle



Norman Wade's Radius Tension series 2½ standard drafting desk



Series 2 Radius Tension in-line drafting unit by Norman Wade

drafting desks

Suppliers of drawing office equipment, materials and services in Canada for more than 20 years, Norman Wade Company Limited recently introduced a unique functional improvement in the design of drafting desks.

Known as the Radius Tension balancing principle it allows absolute mobility of the drafting surface to any workable board position without counterweights or obstructive mechanisms. The draftsman can move his knees and feet freely while working at a comfortable sitting height.

The Radius Tension principle is featured in two types of Norman Wade's drafting units — Series 2 and Series 2½.

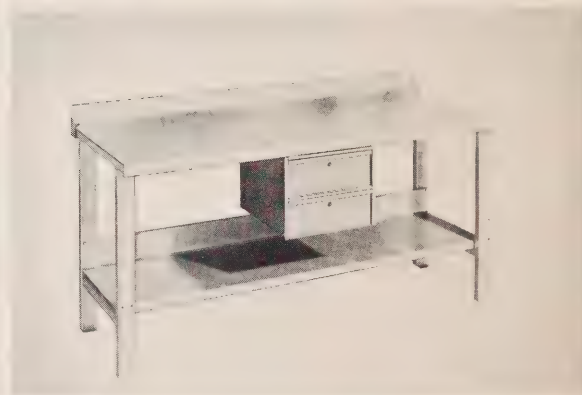
The Series 2 consists of four models which have adjustable drafting surfaces as well as numerous reference and storage space alternatives. The surface areas of this special series are: 38 by 48 inches (965.2 by 1,219.2 mm); 38 by 60 inches (965.2 by 1,524.0 mm); 43 by 72 inches (1,092 by 1,701.8 mm).

Designed primarily for technical institutions, the Series 2½ provides a drafting surface that is easy to adjust. Produced in two different models, drafting surfaces measure: 24 by 36 inches (609.6 by 914.4 mm); 30 by 42 inches (762.0 by 1,066.8 mm); 36 by 48 inches (914.4 by 1,219.2 mm).

Both series are constructed of heavy-gauge steel for maximum rigidity and long life. Other boards within these size ranges are also available. Operating in eight major Canadian cities, Norman Wade has sold more than 10,000 Radius Tension boards to drawing offices throughout Canada. Now this vigorous Canadian company is looking for additional sales outlets in other markets around the world.

NORMAN WADE COMPANY LIMITED

4430 St. Catherine Street West, Montreal, Quebec, Canada



Pedlar People's modular work benches

modular work benches

Practical steel work benches with interchangeable units, especially designed for use in technical schools, are manufactured by The Pedlar People Limited. Established in 1861, The Pedlar People's many years of metal fabrication experience guarantee quality, durability and streamlined design in all its products.

Engineered after consultation with school shop directors, all component parts are sturdy and versatile. Bench tops, legs, drawer units and pedestals, end and back panels, sliding doors, kick plates and swing-out stools may be combined in an almost limitless number of flexible units.

The Pedlar People's new catalogue — available on request — illustrates more than a thousand different standard bench combinations which can be ordered simply by referring to catalogue numbers.

Student benches are available in a variety of sizes: 24, 30 and 36 inches (610, 762 and 914 mm) in depth; 48, 60 and 72 inches (1,119, 1,524 and 1,829 mm) in length. Arc-welded, heavy channel formed steel legs give a finished bench height of 33 $\frac{5}{8}$ inches (856 mm).

The Pedlar People's regular bench top, of heavy-gauge steel, is bolted to the legs from the underside to prevent holes and bolt heads from marring the smooth top surface. For greater rigidity and sound absorption, bench tops may be ordered with thick planks inserted under the steel top. The benches are also produced with Masonite bonded to the regular steel top to protect delicate small parts assembly and cutting edges of valuable tools.

The company also manufactures a laminated hardwood top of 1 $\frac{3}{4}$ inches (44 mm) with a factory applied protective coating.

Single and double drawer units, complete with cylinder locks, can be added to the basic bench. For appearance and practicality, drawer or door pedestals with recessed bases may replace bench legs. The range of suggested bench assemblies covers the complete needs for school workshops — woodworking, machine shop practice, sheet metal, motor mechanics and others.

The Pedlar People also produces storage cabinets, steel shelving, bins and school lockers.

THE PEDLAR PEOPLE LIMITED

519 Simcoe Street South, Oshawa, Ontario, Canada

Royalmetal's model 1736 art desk



Royalmetal's pedestal-type tablet arm chair, model 5118P



Model 5118F folding tablet arm chair by Royalmetal



Model 3400 combination desk and seat by Royalmetal

school furniture

Founded in Canada in 1935, Royalmetal Corporation Limited produces a complete range of wood and metal furniture for use in schools, hospitals, offices and other commercial applications.

The company's art desk has a special tilt-up section for sketch work with pencil rack attached. Beneath a plastic laminated top — for easy cleaning and maintenance — is a convenient storage area.

Designed for comfort and maximum storage for students' books and binders, Royalmetal's 3400 Series combination unit is available in 13, 15 and 17-inch (330.2, 381.0, 431.8 mm) seat heights. Plastic seats and backs, nylon swivel glides and tops measuring 18 by 24 inches (457.2 by 609.6 mm) are added features.

Model 5118P pedestal type tablet arm chair is ideally suited for lecture halls and small classrooms. With seats and backs of durable molded plastic, its heavy-gauge tubular steel base provides years of maintenance-free service.

Royalmetal's trapezoidal tables — perfect for kindergarten use — may be grouped in straight row, circular or semi-circular arrangements. Each table accommodates three pupils. Measuring 20 to 22 inches (508.0 to 558.8 mm) in height, the tops are 36 by 24 inches (914.4 by 609.6 mm) in area.

The 5000 Series student's chair, with solid tubular steel frame and plastic seat and back, complements the trapezoidal tables.

Where students require maximum comfort and extra large writing surface during long hours of lectures and classroom work, the 5118F folding tablet arm chair is recommended.

Royalmetal representatives will estimate costs and help principals and school boards select the most efficient layout and school furniture to suit individual school floor plans.

All Royalmetal products are covered by a 10-year structural guarantee.

ROYALMETAL CORPORATION LIMITED

Hespeler Road, Galt, Ontario, Canada



Steel Equipment's Mark II executive desk



Steel Equipment's Stor/Wal file and storage cabinet, winner of a Canada Design '67 award

steel furniture, file cabinets, shelving

Ingenious ways to save space are featured in desks and filing cabinets designed and manufactured by Steel Equipment, one of Canada's oldest manufacturers of office furniture.

A new concept in filing equipment is the company's STOR/WAL system. Composed of modular, interchangeable side files and cupboards, this system puts every inch of wall space to work. All units have a standard depth of 17½ inches (444.5 mm) and are built on a 30-inch (762 mm) module.

Units can be faced in opposite directions and bolted together to provide separation between school office areas or classrooms or used as complete storage walls to eliminate partitions.

Steel Equipment manufactures five models of heavy-duty steel desks. They are available in the Galaxie line with wood side and end panels and with wood tops. Compatible filing equipment is available. There is a choice of 19 mix or match colors.

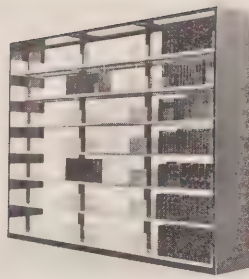
An outstanding desk from this company is the Stellar Compact. Because the desk top has been reduced from the conventional width of 30 inches (762 mm) to 24 inches (609 mm), 11 of these desks can be satisfactorily placed where only 10 standard-size desks can be accommodated.

Another feature of the Stellar Compact is a sound-deadening wood core top. The desk has hooded doors and adjustable square leveling feet.

The company also manufactures steel cupboards, board room tables, side and end tables and service units.

STEEL EQUIPMENT

A Division of Eddy Match Company Limited
819 Yonge Street, Toronto 5, Ontario, Canada
Cable: STEELEQUIP



Flush-line bookstacks by Sunshine Sunshine's Sunar Noiseless lockers



Sunshine's classroom, school and library equipment

classroom, school and library equipment

A total design concept, perfected by Sunshine Office Equipment Limited over a 35-year period, has brought a breakthrough in functional steel furniture for schoolrooms, locker rooms and libraries which complements the most advanced forms in contemporary educational architecture.

A flush line design theme that offers steel with style fits study carrels, book trucks, library tables, display stands and shelves into a cohesive library arrangement which can be further expanded as space permits. Chrome-plated or baked enamel frames are surfaced with rich wood-grained hard-wearing Arborite.

A new locker, called the Sunar Noiseless, is produced in single or double tier models. It eliminates all metal to metal noises by having a double-walled door hung on silent bearings and its door closing against rubber stops. Even the lock pocket is lined with polypropylene for silence and minimum maintenance.

The same tough phosphate coated steel used in the Sunar locker is welded into a variety of other rugged and versatile classroom cabinets in 42 and 72-inch (1,067 and 1,829 mm) heights suitable for wardrobe use or storing supplies. The cabinets are dustproof and have quickly adjustable shelves on easy-fit brackets.

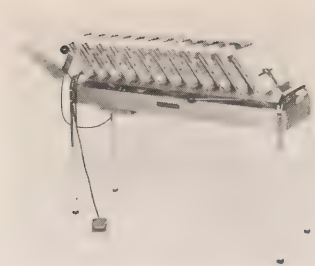
Lounge or dormitory armchairs and study chairs from this major Canadian manufacturer have molded latex cushions over Perelli webbing. A select hardwood upholstery frame covers the welded chrome steel structure. All chairs have self-leveling legs. Three woven fabrics or two vinyls in a variety of colors are used as covering materials.

The teachers' desks — with plastic laminate top in walnut textured finish — boast an adjustable front bookshelf. Set off by chrome steel legs on self-leveling feet, the desks feature a variety of drawer positions.

Sunshine's sturdy, welded steel project counters come in three different working surface heights to suit individual customer preference. The 72-inch (1,829 mm) long, 24-inch (609.6 mm) high and 24-inch (609.6 mm) deep unit has nylon-glide doors, and a plastic laminated top — on a thick wood core — for easy maintenance. Counters may be joined together and space is allowed for sink installation. Cabinet finish is acrylic enamel.

SUNSHINE OFFICE EQUIPMENT LIMITED

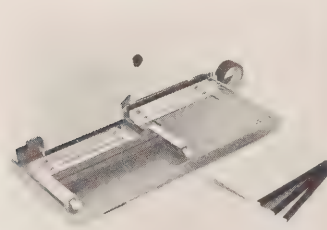
Waterloo, Ontario, Canada
Telex: 0295-756



Therm-A-Bind's electric collator and jogger



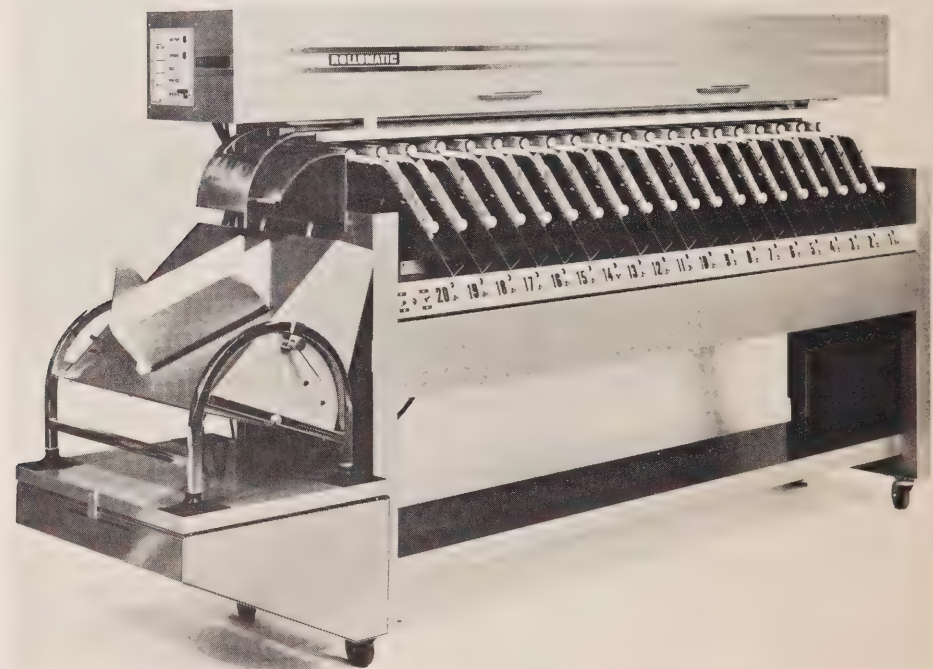
Therm-A-Bind's swivel mounted desk jogger



Therm-A-Bind's Booktaper



Therm-A-Bind's Mark 6 binding machine



Therm-A-Bind's Rollomatic automatic collator

paper handling equipment

Machines that collate up to 20 sheets of paper with infallible accuracy are just one line of an outstanding range of paper handling equipment manufactured by this progressive young Canadian company.

Therm-A-Bind Limited has been established only since 1960 but already its products — designed after consultation with industry, institutions and general business offices — are widely used in Canada and 17 other countries. More than 80 per cent of the company's production is exported, much of it to educational centers.

Therm-A-Bind produces three electric zip-gather collators and a manual model, all guaranteed to collate a perfect set of papers; no sheet is missed or doubled.

The Rollomatic and Mark 20 models collate up to 20 sheets — more than double the capacity of any other automatic equipment — at the rate of 1,200 sets an hour. The Rollomatic also collates sets of varying sizes simultaneously.

Sheets are ejected electrically from a row of pockets and are collected by a zip-gather pad that skims over the top of the sheets. Each pocket handles 200 to 250 sheets in a variety of paper sizes up to a maximum of 11 by 17 inches (279.4 to 431.8 mm) or up to DIN A3. Stapling and stacking attachments are optional. Constructed of sturdy steel both the Rollomatic and Mark 20 are mounted on rubber ball bearing casters for easy mobility. Desk models are also available.

The third electric model is semi-automatic: the zip-gather pad is moved manually over the protruding sheets for collection. Handy table-top collators for the smaller office or school are also produced. The electric models can be plugged into standard wall outlets operating on 110-115 or 220-230 volts.

Therm-A-Bind's full range of products — designed to speed and streamline paper handling jobs — includes two joggers, two binding machines and a booktaper. All can handle paper from onion skin thickness to card stock. Instruction manuals are supplied with each unit.

THERM-A-BIND LIMITED

65 Crockford Boulevard, Scarborough, Ontario, Canada
Cable: THERMABIND TORONTO

Desks and chairs by Vicometal



Series 13-230



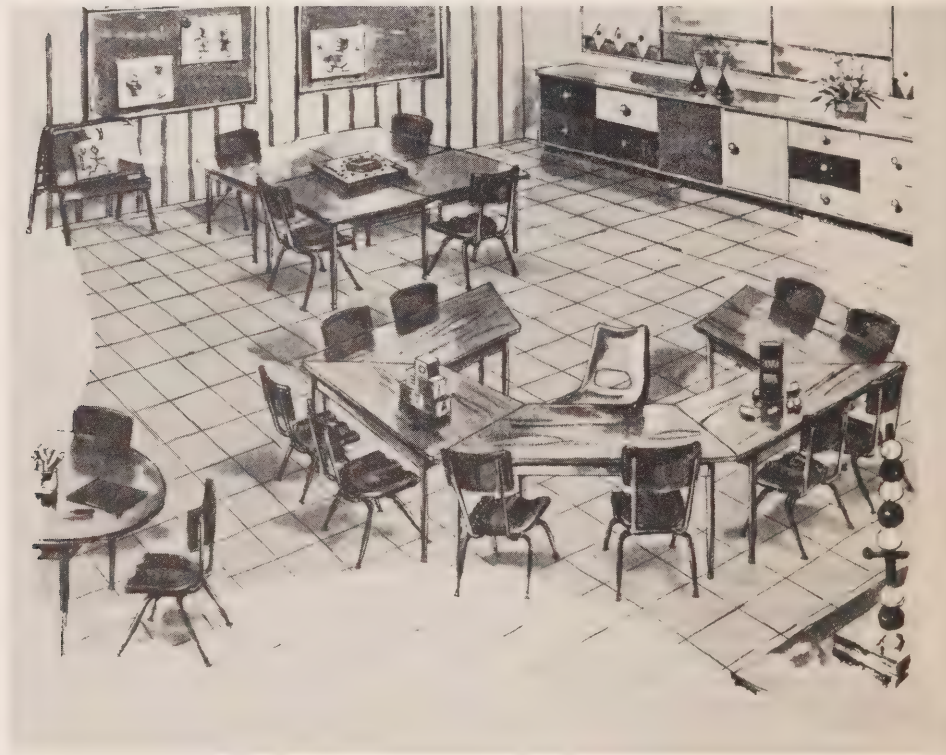
Series 13-140



Tru-Line series 13-110



Series 14-220



A selection of Vicometal kindergarten furniture

school furniture, chalkboards and tackboards

Vicometal Ltd., one of North America's leading manufacturers of school furniture, has three modern plants which produce a wide range of products for all phases of education. This includes public and high schools, commercial schools, universities, libraries and cafeterias. Dating back to 1870, this company has been serving Canadian education on a nationwide basis ever since.

Because Vicometal produces for nationwide distribution, all equipment is designed for easy and economical transportation over long distances — products are shipped in knocked-down form and engineered for easy set-up.

Marketed under the name Tru-Line, the company's desks and desk-chair combinations are available in a variety of styles. All writing surfaces feature durable melamine plastic, bonded to solid rock maple cores and moisture balanced by a plasticized backing sheet. This provides a long hard-wearing working surface.

The Tru-Line series 13-110 desk and chair combination, designed essentially for primary grades, features an extra large steel or a plastic book box. Both have a built-in pencil and pen tray. Open-front and lift-lid models are available.

For general purpose use the 13-230 model is recommended. It has a working surface of 24 by 30 inches (609.6 by 762 mm), making it especially suitable for studies where a variety of text books must be spread out at one time.

In kindergarten furniture, Vicometal offers tables in a variety of top shapes, sizes and colors. The legs come knocked-down and are assembled by bolts to a rigid metal frame. Tops are plastic bonded to solid rock maple cores and moisture balanced with a plasticized backing sheet.

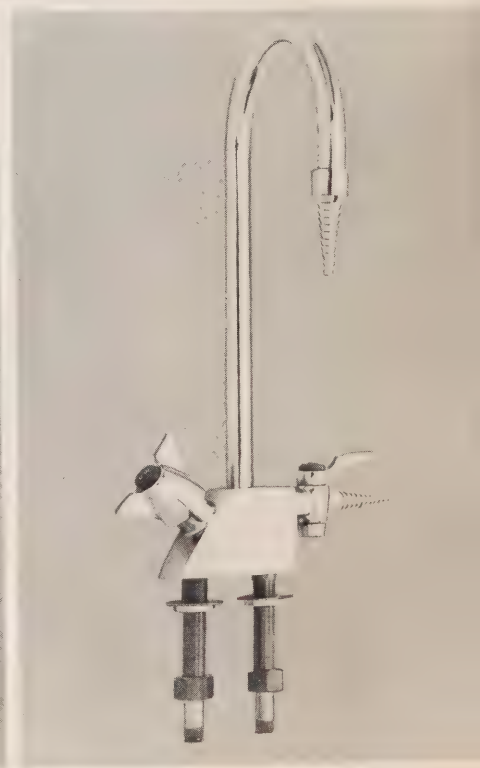
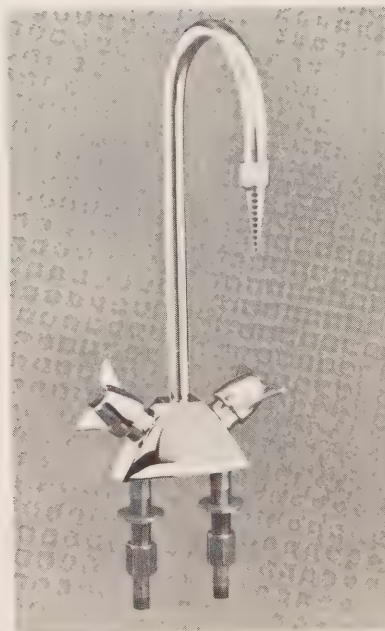
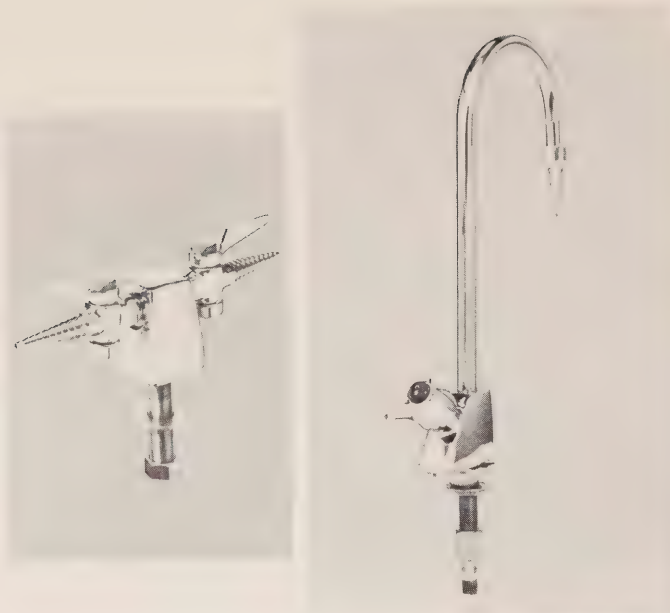
The company also manufactures chalkboards and tackboards. Steel faced and steel backed with a honeycomb core, Tru-Line chalkboards will not buckle or warp. They have a deep, uniform acrylic writing surface that is glare-free and durable and is easily cleaned with any detergent.

Vicometal offers a quality tackboard with a vinyl surface in three attractive colors over firmly packed resilient cork. A natural tan board of moderate cost, has a soft, self-sealing quality and remains pliable and resilient through its long life.

All Tru-Line chalkboards and tackboards are completely prefabricated ready for easy and economical installation.

VICOMETAL LTD.

Division of Vilas Industries Limited
800 South Street, Cowansville, Quebec, Canada



Wallaceburg Brass laboratory valves, faucets and fittings

laboratory brass fittings

Specialists in the design, development and production of brass valves, faucets and fittings for water, gas and steam applications, Wallaceburg Brass Limited has been in business since 1905.

Expanding steadily over the years, this Canadian company now operates three manufacturing plants where top designers and highly skilled workmen produce the finest in laboratory fittings for industry, hospitals and educational institutions.

All Wallaceburg parts — bodies, goosenecks, handles — are made of brass except where stainless steel is required for needles and seats on needle valves or when plastic is used to line distilled water faucets.

Among the many products and component parts from Wallaceburg are laboratory faucets, remote control and multiple outlet faucets, straight and angle stops for panel mounting, heavy duty goosenecks, mixing faucets for wall or deck mounting and dual service faucets. Many other variations are available.

Wallaceburg fittings come in a choice of two finishes — chrome plated or CR (corrosion resistant). The chrome plated finish is recommended for fittings used in laboratories, hospitals and schools as it provides long lasting beauty, resists abrasion and corrosion and is easy to maintain. Where conditions are unusually severe, customers should order CR finished products which withstand acute corrosion from acids, alkalis and common solvents.

Each product from Wallaceburg Brass is tested before shipment. The company unconditionally guarantees its products as to materials and workmanship providing they are used for the purpose for which they were intended.

WALLACEBURG BRASS LIMITED

Wallaceburg, Ontario, Canada



One of Westeel-Rosco's school lockers

equipment and construction products for schools

A leading Canadian sheet metal fabrication company, Westeel-Rosco Limited, specializes in the manufacture of quality sheet metal products for schools and the construction industry. Incorporated in 1852, the company operates 17 plants across Canada.

W-R-L school lockers, sturdily built and attractively designed, have been firm favorites with school architects and Canadian school boards for many years.

Finished in high grade baked enamel, these lockers come in a wide range of sizes and colors. The doors are rigid and strong and can withstand rough treatment from high spirited students. The doors are designed to accommodate three types of locks — padlocks, key locks or combination locks. W-R-L also features a double-tier model which provides double the accommodation where space is limited.

In addition to lockers, W-R-L manufactures free-standing study cubicles or carrels. Made from prefabricated components they are easy to assemble, dismantle, move, alter or rearrange as required. Also available are movable metal wall dividers or partitions — ideal for changing classroom layouts — and steel shelving for storage of school supplies.

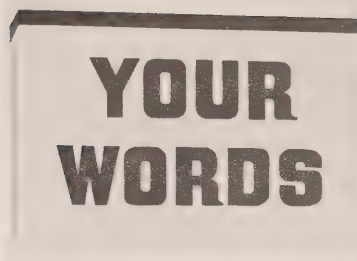
Products used in school construction include well-built toilet compartments or partitions which provide maximum privacy; and a full range of hollow metal doors, framed steel door frames and fire doors.

The company also features insulated metal wall systems used for perimeter walls of schools. Easily assembled from roll-formed panel sections, they are precoated with durable paint finishes. Standard steel roof deck, acoustical steel deck — for use in auditoriums, gymnasiums and cafeterias — and cellular steel flooring are also fabricated by this well-known Canadian company.

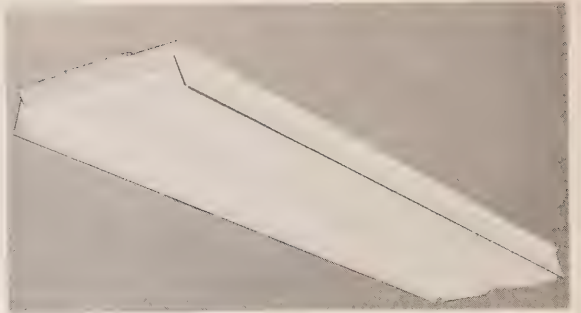
WESTEEL-ROSCO LIMITED

1 Atlantic Avenue, Toronto 3, Ontario, Canada

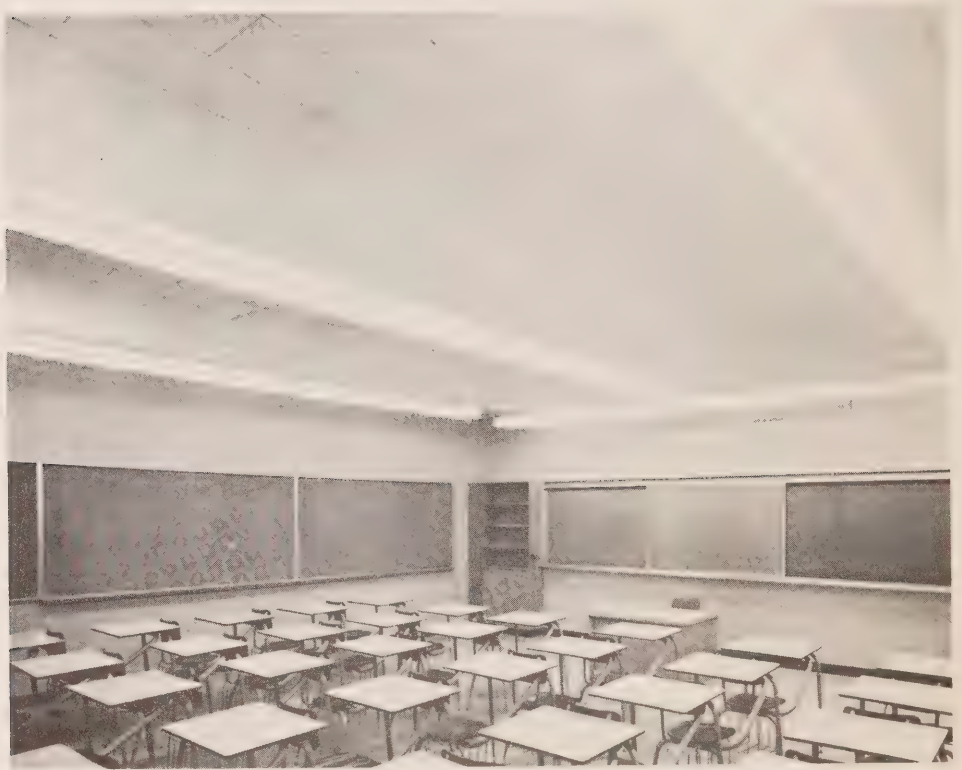
Telex: 02-2635



Wilson's Guideline sign light



Collegiate luminaire by Wilson



Collegiate luminaire installation by Wilson

school and institutional lighting

For more than half a century, Wilson Lighting Ltd. has designed, developed and manufactured a wide range of school lighting fixtures used in many educational institutions throughout Canada.

The company now offers its new Collegiate injection molded luminaire which was designed specifically for schools but is also used in many commercial fields.

The Collegiate model does more than simply let students see the blackboard, it provides better working conditions through better lighting by creating a uniformly illuminated classroom.

Using the special plastic injection molding process in the manufacture of its Collegiate line, the company produces a product of consistent uniformity which considerably reduces the installation costs.

Because of its light weight and special physical dimensions, 24 feet (7.3 m) of Collegiate fixtures can be installed on a minimum of three suspension stems.

Operational efficiency, brightness control, economical operation and minimal maintenance are important factors to be considered before purchasing any lighting fixtures. These characteristics are emphasized in all Wilson's products.

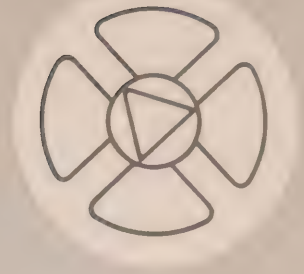
Wilson Lighting Ltd. also produces the Guideline long-life sign light which has five exclusive features — molded phenolic body components; thick acrylic diffuser; multi-mount adaptability; more than 5½ years average lamp life; can be lettered with any message.

The Wilson Guideline can be used as an exit light or where guiding lights are necessary. It has specially designed lamps, not just ordinary incandescent ones. This reliable unit can be installed in three different ways using one fixture.

The company is interested in exporting to countries of the Middle East, Africa, Asia, South America, and the Caribbean.

WILSON LIGHTING LTD.

2200 Lakeshore Boulevard West, Toronto 14, Ontario, Canada
Telex: 02-2217



AUDIO-VISUAL AIDS



Aida's Multiple Answering Teaching Aid

multiple answering teaching aid

Personal involvement, individual decision and private response. That's what takes place when pupils use an answering aid from Alda Instruments Limited in reply to a teacher's question.

Alda Instruments Limited has developed a multiple answering teaching aid — MATA — to help the teacher and create greater pupil concentration. MATA consists of a control panel monitored by the teacher and a responder for each student. The master console displays groups of four lights, each light corresponding to a key on the student's responder.

When the teacher asks a question, each student replies by depressing one of the keys on his responder. This sets off an electrical impulse that is transmitted to the master console.

The teacher can readily identify the student by the position of the light on the console, and knows instantly, by the student's answer, if the question was understood. If not, MATA's flexibility allows the teacher to query the student by illuminating the light on the responder until a correct answer is received.

The teacher will also appreciate the model's responder record sheet. Fitted to the master console, each student's reply can be monitored on the spot. The record sheet, therefore, eliminates the need for marking papers — a chore most teachers dislike — and may be used to analyze replies.

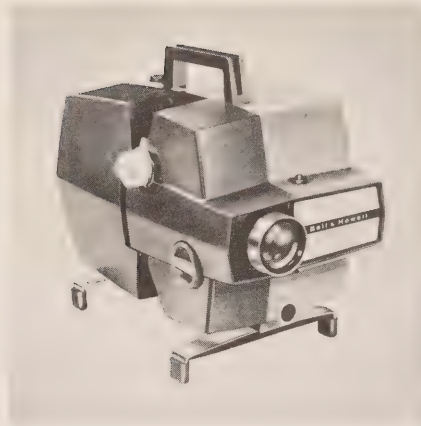
A proven scientific tool, MATA has also been used in factory training, adult education and for learning office administration. Adaptable to any country's electrical system, its educational applications are almost limitless.

The imaginative teacher — using MATA for supplementary instruction — can help increase the speed and learning capacity of students, and create an interesting and happy classroom atmosphere. Instructors looking for means to develop sound educational practices can plan programs to suit different age groups.

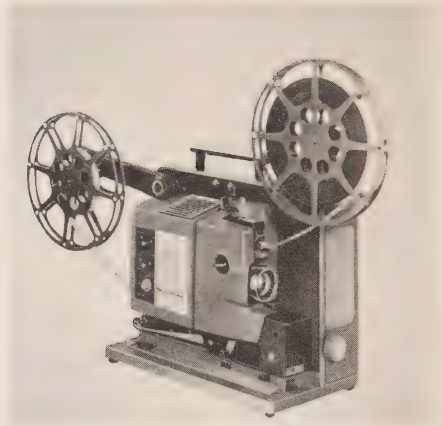
This Canadian contribution to educational development has received widespread approval in North America and Alda Instruments anticipates similar success in overseas markets.

ALDA INSTRUMENTS LIMITED

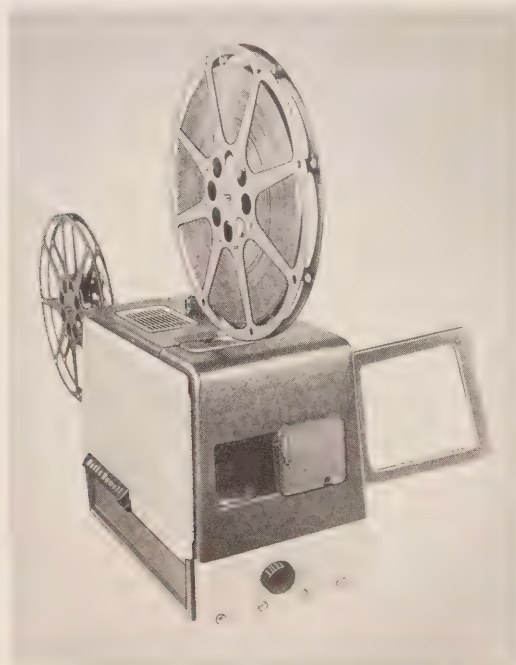
2444 Bloor Street West, Toronto 9, Ontario, Canada



Specialist Autoload filmstrip projector by Bell & Howell



Bell & Howell's Specialist Autoload Filmosound 16 mm sound projector



Bell & Howell's Specialist Filmosound 16 mm sound projector



Bell & Howell's Model 301 overhead projector

filmstrip and movie projectors

A world leader in cinematography equipment, Bell & Howell Canada Ltd. offers some outstanding advances in filmstrip, still and motion picture projection equipment for use in both classroom and auditorium.

Cartridge loading and automatic threading are features of the company's Autoload filmstrip projector. These eliminate handling of the film and ensure foolproof operation. Filmstrips are threaded safely and quietly, as well as automatically. In addition, the film cannot stick — there are no hot spots to cause delays during a presentation.

The Autoload also takes two-by-two inch (50.8 by 50.8 mm) slides. Three models are available: 500 watts, 50 watts and a de-luxe 750-watt version that projects filmstrips forward and reverse by remote control.

The Autoload 16-mm sound projector features an automatic loop restorer which assures uninterrupted projection; a still picture and reverse control which allows review of any desired scene; and unparalleled light transmission which projects clearly even in a lighted room.

Another sound projector from Bell & Howell Canada is the Filmosound Specialist. This highly dependable model has foolproof manual threading, pilot light and fingertip controls.

The Specialist is easily portable, simple to set up and requires minimal maintenance. Even the most inexperienced can run it and obtain excellent performance. Both optical sound and silent films are projected crisply and with good contrast — even under the most adverse lighting conditions.

Bell & Howell's Specialist Model 301 overhead projector — featuring an exclusive combination of light equalizing reflector, light intensifying condenser and positive alignment fresnel — presents consistently bright, sharp and uniform pictures. The lens head, with operating instructions conveniently printed on the back, has coated lenses, front-surfaced mirror and is completely sealed for dust-free operation.

Like the arm and platen, the lens head is made of die-cast aluminum for maximum strength and rigidity. The body of this most advanced projector is of all steel construction. The lamp can be changed in seconds, at the twist of a knob, and automatically repositions itself.

A full range of accessories is available for use with the company's projectors.

BELL & HOWELL CANADA LTD.

125 Norfinch Drive, Downsview (Toronto), Ontario, Canada

Cable: BEHOW TORONTO



ETV-3 educational television receiver/monitor by Electrohome Limited

educational television equipment

A leading Canadian manufacturer of electronic and electrical products for more than 60 years, Electrohome Limited now offers educational television equipment which is used in many schools throughout Canada.

The company's range of products includes stereo hi-fis, home television sets in color or black and white, phonographs and electronic organs.

The newest educational model from Electrohome is the ETV-3, a 23-inch (584 mm) UHF/VHF receiver and closed circuit monitor with video/audio tape record and playback facility for recording live TV programs. An ac utility outlet is an added feature allowing use of a phonograph. The ETV-3 meets the Ontario Government specifications.

A tinted direct vision tube — with high light output — prevents glare and reduces reflection and distortion. The unit has a sensitive tone control, preset fine tuning and its tilting chassis — for easy maintenance — is designed for air-cooled components.

The unit has a handsome, all-metal cabinet finished in sand-colored, baked-on enamel to withstand scuffs and scratches. Double doors on piano hinges can be swept back for unobstructed viewing or set in positions to act as an additional light shield. When doors are closed the set shuts off automatically. Operating instructions are permanently printed on the unit, and control knobs have been specially designed to prevent loss or damage by school pranksters. There is a one-year warranty on all parts.

The ETV-3 may be mounted on a sturdily constructed mobile stand with four smooth rolling casters to prevent accidental tipping, or may be suspended from the ceiling. The ceiling mount, finished in chrome, is fully adjustable and maneuverable in all directions.

Electrohome Limited operates six factories where it also produces fans and air conditioners, humidifiers and dehumidifiers, electric heating equipment, intercoms and fractional horsepower motors.

ELECTROHOME LIMITED

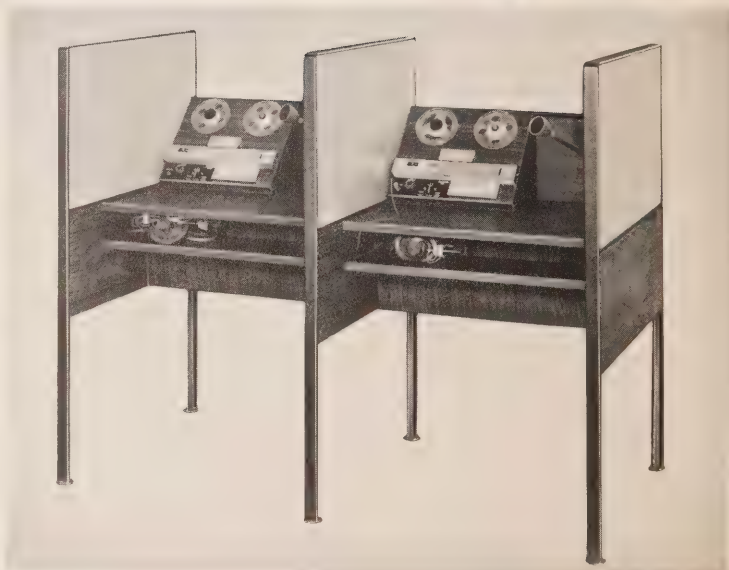
809 Wellington Street North, Kitchener, Ontario, Canada
Telex: 0295-449



Model 135 educational rack by Electro-Vox



Top: Electro-Vox language laboratory control console



Bottom: Electro-Vox language laboratory student booth

language laboratories and sound systems

A pioneer and leader in sound equipment for more than three decades, Electro-Vox Industries Inc. now produces modern electronic aids to education.

Versatile and economical, the units feature the latest techniques for foreign language instruction, and intercommunication from the principal's office to each classroom.

The Electro-Vox system — the language laboratory — consists of a console monitored by the teacher and a booth for each student. The world-renowned language laboratory installed at the University of Montreal was designed and manufactured by Electro-Vox.

Easy to operate, the Electro-Vox system teaches by sound — programs are fed to the student who listens, records his response, then plays back the whole tape of questions and answers. The desk-type main console, housing one record-player turntable, four two-track tape recorders and a control panel, provides individual auditory control and oral intervention by the teacher — individually or collectively.

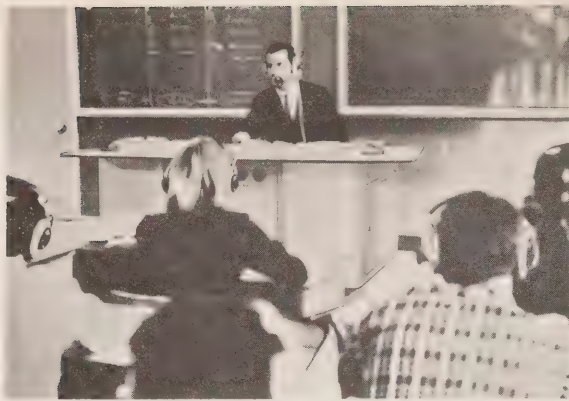
The student's booth includes one two-track recorder, control panel, headset and microphone. Each individual can adjust the volume of his headphone and signal the teacher for personal attention. The student can analyze his efforts by accelerating or retarding the tape recorder, adjusting it to his individual abilities and learning speed.

The Educational Control Rack — located in the principal's office — provides programming facilities and allows direct intercommunication with each classroom. The model includes an automatic record changer, tapes, radio tuner, and classroom selector panel. Of desk height, the cabinet provides complete accessibility to operating controls, the record changer and record storage space.

The company has distributors throughout Canada, the United States and Mexico who install and service the systems. Electro-Vox offers free estimates, over-all factory guarantee and service warranty for one full year. A 10-year service and parts guarantee is also available.

ELECTRO-VOX INDUSTRIES INC.

2626 Bates Road, Montreal, Quebec, Canada
Cable: ELEVOX-MONTREAL



White language laboratory installation



Dictating lab steno-trainer by White Electronic



White Electronic's model M200C automatic swept-wing teacher's console

automatic language laboratory

An automatic language learning laboratory — developed in Canada by White Electronic Development Corporation (1966) Limited — was specially selected for use at the United Nations International School in New York after UN officials had studied electronic teaching aids from other North American and European sources.

The Model M200C White automatic learning laboratory can be set up in any standard classroom as it requires no student booths. With White's immediate replay system, a tape recorder effect at every student position is achieved while the only equipment at each position is a headset; thus the student has no controls or equipment to handle, allowing him better concentration on lesson material.

The teacher's swept-wing console is simple to operate with a minimum of color coded controls to handle, permitting him greater attentiveness on students' replies. Records, portable external tape recorders and special White tape recorders — built right into the console — are used as program sources.

The teacher can monitor the student — without his knowledge — or carry on a two-way conversation with him. Several languages can be taught to different students in the same class simultaneously.

This extremely versatile unit can be programmed to the teacher's preference and requires minimal maintenance because of its engineering expertise and careful solid state design.

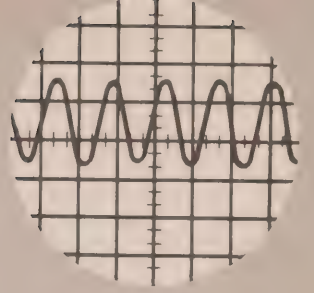
The equipment includes facilities for motion picture projection, educational television or other visual aids. Student positions can be increased by simply adding plug-in units to the teacher's console.

White Electronic also produces the Secretaria dictating lab, a simple but complete system housed in a standard secretarial desk. With all programs controlled from the top of the desk, color-coded buttons permit the teacher to start or stop any of the three lesson sources concealed in the roll-out drawers, talk to students or become the lesson source.

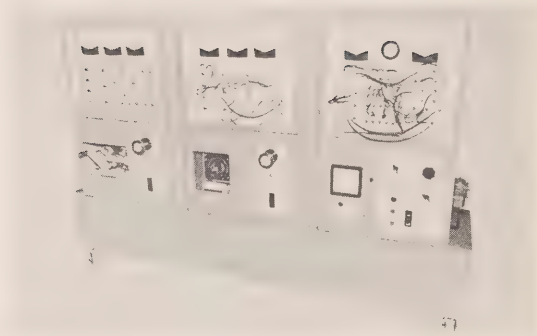
Student positions feature a compact outlet containing volume control, program selection and individual stethoscopic headsets. The laboratory is ideally suited for library use.

WHITE ELECTRONIC DEVELOPMENT CORPORATION (1966) LIMITED

1458 Kipling Avenue North, Rexdale, Ontario, Canada



LABORATORY AND VOCATIONAL SHOP EQUIPMENT



*Ashman's Electra motor-generator set
model SE 530*



Ashman's Electra motor-generator set model SE 531



A complete laboratory installation by Ashman Industries

electronic teaching equipment

A comprehensive range of precision electronic equipment for teaching electricity, electronics and general science is available from Ashman Industries (1966) Limited.

The company, first established in 1945, will also design and engineer any teaching aid to customer requirements and offers a complete school shop design service.

Catalogue teaching equipment from Ashman, marketed under the brand name Electra, is designed for use in universities, vocational and trade schools and industrial art shops. Principal courses covered are electronics, industrial and domestic electricity, refrigeration, air conditioning and maintenance.

Products include central power and individual student power supplies, motor generator sets, resistive loading units, capacitative and inductive reactors, transformer demonstration panels, teachers' consoles, construction and demonstration kits, meters and testing equipment. The distribution system used provides safe, flexible sources of variable voltage ac and dc power for experimental and instructional purposes.

All equipment is manufactured to rigid safety standards and incorporates efficient, high-speed overload protection.

Panels are made of anodized aluminum with symbols and lettering photo processed beneath the surface for easy reading and lifetime permanency. While most installations have many pieces of similar equipment, each installation is planned and engineered to individual customer requirements.

Ashman Industries also manufactures a complete line of quality-built furniture for the laboratory or shop. This includes student benches, teachers' demonstration benches, instructional sheet trays, storage cabinets, tools and apparatus cupboards, quench and washing tanks and storage racks.

ASHMAN INDUSTRIES (1966) LIMITED
43 Glen Road, Hamilton, Ontario, Canada



54

electric and electronic teaching systems

One of Canada's leading producers of portable electronic and electrical testing equipment, panel meters and special precision instruments has developed new products and teaching systems designed specifically for technical schools.

Established in 1946, Bach-Simpson Limited manufactures student bench meters, transparent meters, general purpose microtesters and VOM (volt ohm milliammeter) demonstrators. In conjunction with this equipment Bach-Simpson offers its modern teaching systems — developed after many years' experience in the field of electrical and electronic aids to instruction. These simplified educational systems are easy to teach and learn, and follow approved teaching techniques.

Six courses are available:

- Basic Electricity
- Basic Electronics
- Industrial Electronics
- Basic Electronics and Applied Mathematics
- Advanced Electronics and Applied Mathematics
- Communications, Industrial Electronics and Applied Mathematics

Each course contains all the necessary text books, lab manuals, project boards, demonstrator units and hand tools required by both student and teacher. The courses simplify teaching and help students absorb knowledge more readily.

Whether it be the latest teaching system in electricity or electronics, or special equipment such as large size VOM demonstrators for industrial use Bach-Simpson can supply them.

With highly skilled personnel operating its engineering and manufacturing facilities at London and Warton, Ontario, Bach-Simpson Limited can produce electric and electronic teaching equipment to individual customer requirements. The company also maintains a government-approved testing laboratory where control standards are rigidly enforced.

BACH-SIMPSON LIMITED

P.O. Box 2484, 1255 Brydges Street, London, Ontario, Canada



Brown Boggs' model 237-AL foot shear



PT1-4 single drive power table by Brown Boggs

sheet metal working equipment

One of Canada's leading sheet metal equipment manufacturers, The Brown Boggs Foundry & Machine Co., Limited, has developed a full range of machinery for educational shop training programs. The company will provide complete shop layouts to suit individual training needs and suggest appropriate equipment.

The Brown Boggs range fully reflects the high degree of mechanization and the new high-speed production methods introduced into the sheet metal working industry in recent years.

Shears, brakes, folders, slip roll formers, welders and grinders are among the many types of training equipment available from the company. It also offers all necessary hand tools, stakes and other ancillary products.

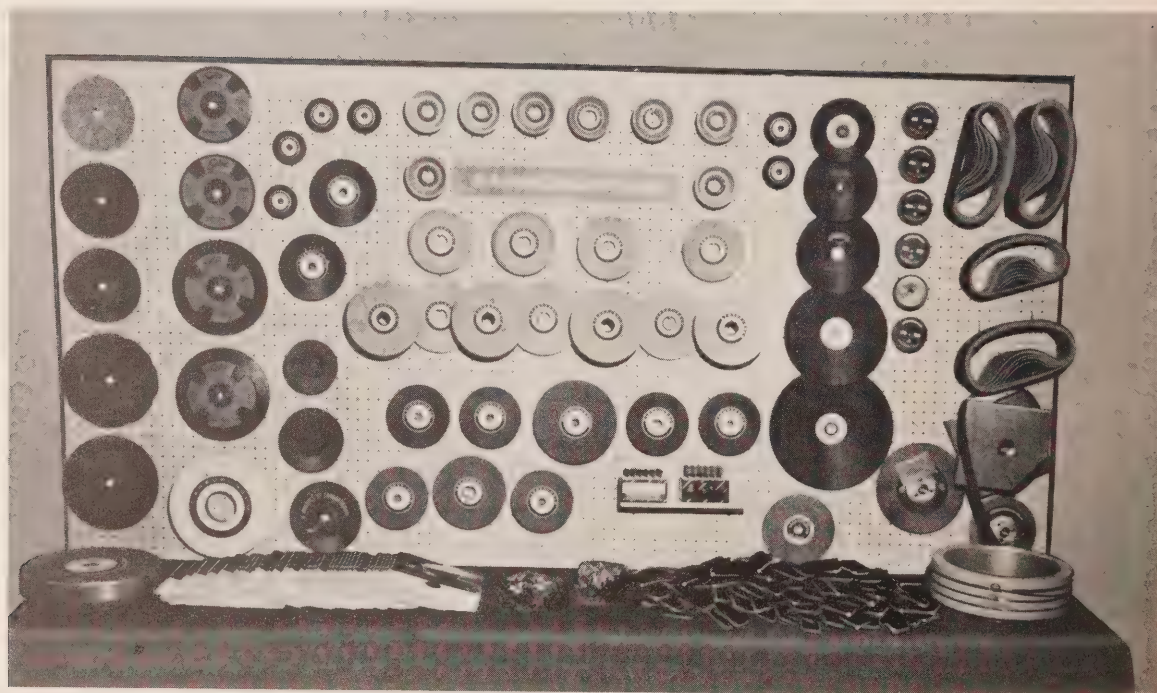
Squaring shears from the company may be foot, air power or motor operated. One model used extensively in vocational schools is the 237AL. This 37-inch (939.8 mm) machine is foot operated and is designed to handle all the cutting problems most frequently met by trainees. Standard equipment includes automatic hold-down with plexiglass safety guard, front and bevel gauges and calibrated back and side gauges.

Another versatile and popular training machine is the company's PT1-4 single drive power table. It is powered by a silent gear reduction unit enclosed in an oil bath and will accommodate most Brown Boggs rotary small machines.

The unit permits the student to have both hands free to guide the material. The drive shaft can be quickly disconnected and the gear reduction unit can be swivelled in seconds to connect up with any one of four machines mounted on the table.

The table is mounted on four heavy duty lock-type casters so that it can be moved to any desired location and locked in position. A peg board is included for storage of extra rolls of material and a convenient shelf holds tools and rotary machines not being used.

**THE BROWN BOGGS
FOUNDRY & MACHINE CO., LIMITED**
275 Sherman Avenue North, Hamilton, Ontario, Canada



A selection of Canadian Carborundum abrasive products

abrasive materials and equipment

Whatever the need for abrasive processes in a trade training school, Canadian Carborundum Co. Limited can supply the materials and equipment.

Established in 1897, the company is now one of the world's largest manufacturers of all kinds of grinding, sizing, finishing and sharpening tools and bonded and coated abrasive products. These are used in schools all across Canada and Canadian Carborundum was the first name in abrasives to be heard by many skilled tradesmen in industry today.

The company operates the world's largest aluminum oxide furnace plant and the world's largest silicon carbide plant. It manufactures all types, sizes and shapes of grinding wheels, sharpening stones and other bonded abrasive products. Coated abrasives produced by the company include grain and bond types ranging from tough, coarse discs for fast metal removal to wide belts for final polishing of stainless steel sheet. A feature of the company's output is KT silicon carbide, a homogeneous crystal form of silicon carbide widely used in wear parts.

Canadian Carborundum is continually developing new products and improving existing ones. Using two exclusive processes, the company has developed a new series of segments with a longer operating life and capable of grinding a great variety of materials. An advanced method of grain manufacture incorporated in its BA segments adds toughness while retaining cool cutting characteristics. A new molding process also gives a segment-to-segment uniformity not previously obtainable.

In another recent development, the company has increased the size range of its cut-off wheels. The larger wheel increases output per wheel and does a faster job to critical standards. These wheels are available from stock in sizes up to 26 inches (660.4 mm) or on special order to 48 inches (1,219.2 mm).

The company offers comprehensive assistance on specific abrasive needs, and gives rapid delivery of standard items and speedy service on special items.

CANADIAN CARBORUNDUM CO. LIMITED

P.O. Box 1007, Niagara Falls, Ontario, Canada



Canadian Curtiss-Wright's Joyce 27QR series two-post lift



Two-post Joyce model 49R hoist by Canadian Curtiss-Wright

automotive trade school equipment

Established in 1955, Canadian Curtiss-Wright, Limited is one of Canada's youngest and most progressive companies in the automotive service equipment field.

In its new 41,000-square-foot (3,808.9 m²) plant the company's automotive division produces lifts, hydraulic jacks, tire changers and ancillary equipment.

Canadian Curtiss-Wright makes a hydraulic lift for each specialized service. Marketed under the trade name Joyce, the lifts have three basic designs: a single-post hoist for general service work; a two-post fore and aft movable piston lift, model 49-R, for heavier service jobs; and a two-post, side-by-side hoist model 27 QRY or 27 QROY — the most versatile of all.

Like the single-post hoist, the QR models pick up a vehicle by its frame, letting wheels drop to facilitate lubrication, tire, wheel, brake, spring and shock absorber service. The lift offers maximum accessibility to under-car parts and movable, underslung arms can be pre-set to handle all cars and light trucks. The two posts on model 49R can be operated independently, and when used with a set of high stands, allow heavy components to be raised and lowered with ease.

The company's foot-pedal operated Big-Four XP-100bf tire changer mounts or demounts a tire in just five seconds. Bead-breakers automatically find the right angle for any rim and free the beads in one motion.

Model FD-132 — a truly universal tire changer — even handles wheels that have no center hole, and small boat trailer tires. Beads are freed effortlessly and safely by an air-powered bead breaker.

Joyce Yello-Jackit hydraulic hand jacks, easily positioned by one man, will lift weights between 1½ to 100 tons (1.65 to 110.23 metric tons).

Canadian Curtiss-Wright's full range of products includes garage horses and stands, truck mount cranes, powered loading ramps, hydraulic feed tables and air compressors.

CANADIAN CURTISS-WRIGHT, LIMITED

500 Carlingview Drive, Rexdale, Ontario, Canada

Telex: 02-29647



*Bottom left: Slope-Port meter
Top left: Multi-Port meter*

*Middle: Master precision portable meter
Right: Giant and Mavo bench precision portable meter*



*Bottom left: Electrical meter movement demonstrator
Top right: Model E-20081 school laboratory
Top left: Industrial analyzer for technical schools
Bottom right: Thermocouple potentiometer*

electrical laboratory equipment

For almost 30 years, Canadian Research Institute has been engaged in research, development and testing of equipment for application in the chemical, electrical and mechanical fields.

Among the wide range of instruments from CRI — sold under the Criterion label — are electrical testing equipment for schools and colleges, research laboratories, bench testing and meter calibration.

The Master — one of the few precision portable meters rugged enough to withstand rough handling by students and still retain an accuracy of plus or minus 0.25 per cent — is used to measure voltage, current, wattage and other electrical properties. Other models include the Giant — excellent for high quality bench work — and the Mavo, ideally suited for average testing, maintenance work and use by students.

Heavy-duty industrial portable meters for use in vocational school industrial laboratories have 250 degree 9-inch (228.6 mm) long scales and are accurate to ± 1 per cent of full scale or better. Offering maximum readability in minimum space, they come in steel cabinets finished in blue and gray baked enamel.

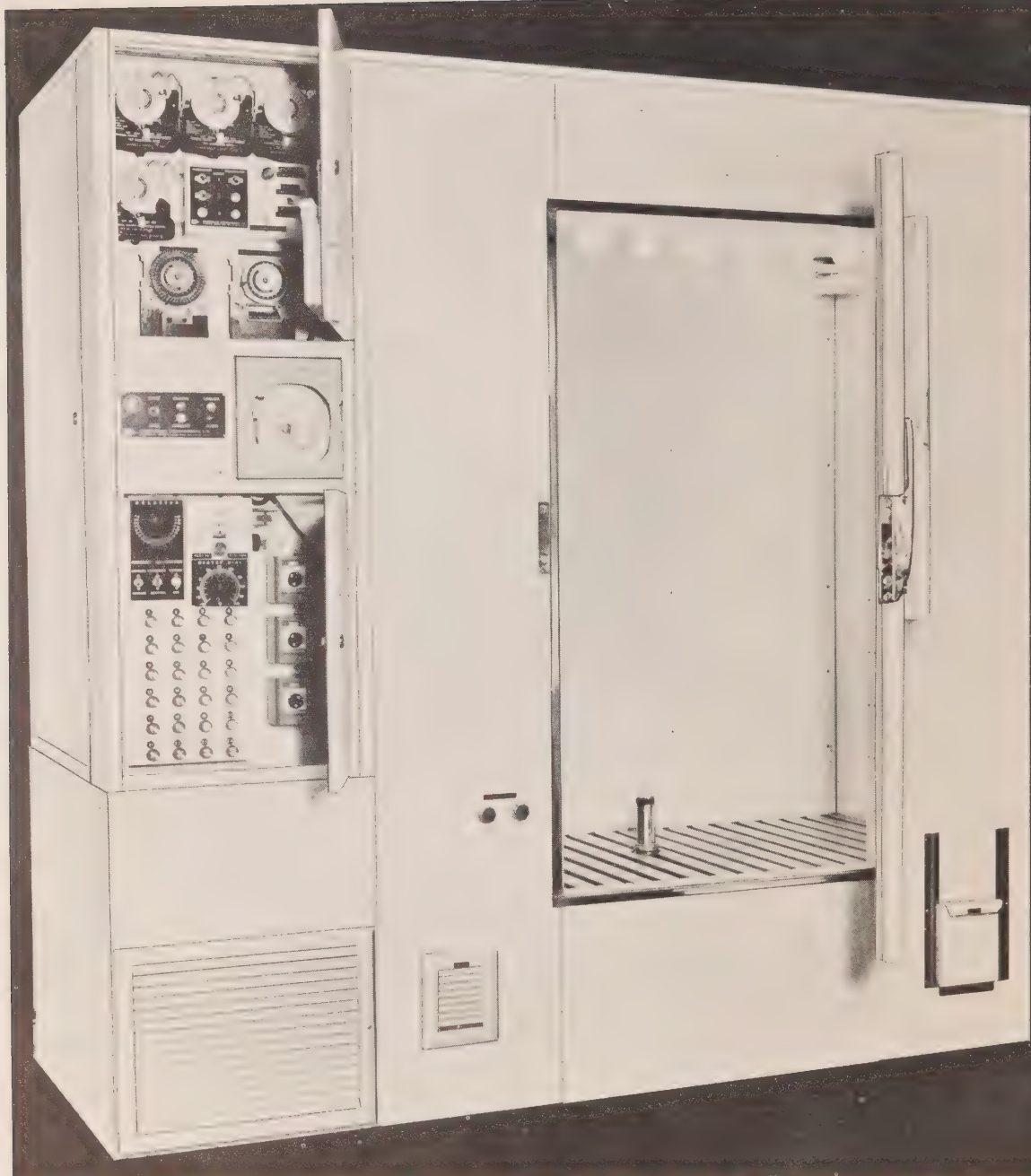
School Multi-Port and School Slope-Port — small, economical school portable meters — offer student and instructor an extensive variety of electrical measurements. They feature a wide scale, highly accurate 4-inch (101.6 mm) meter.

Other instruments include precision Kelvin bridges for ultra-low resistance measurement; thermocouple potentiometers for accurate temperature measurement; conductivity bridges for determining resistance and conductivity of chemical solutions and soils; and industrial analyzers and voltage regulators.

Additional information on these and CRI's photoelectric reflection meter and Electrolab meter movement demonstrators will be supplied on request.

CANADIAN RESEARCH INSTITUTE

85 Curlew Drive, Don Mills, Ontario, Canada



Controlled Environments' model E8 plant growth cabinet

cabinets for plant and seed research

Designers and manufacturers of research equipment for scientific and industrial applications, Controlled Environments Ltd. specializes in the production of cabinets for use in seed germination, plant growth and entomology research.

The company's plant growth and entomology cabinets provide complete programmed temperature, lighting and humidity control. Model E8, mounted on casters or floor guides, is available in three sizes of growth area and four lighting intensities. It allows plants to grow up to 48 inches (1,219.2 mm) in height.

Cool-white fluorescent lamps provide even light distribution over the entire bed and a constant flow of air is supplied through the floor creating almost no leaf flutter. The temperatures may be regulated from minus 10°C to plus 35°C.

Depending on the temperature and intensity of lighting used, a humidity of 50 to 70 per cent is maintained by a centrifugal atomizing humidifier located outside the growing area. Equipment for higher humidities and dehumidifying may be incorporated for specialized growth and hardening tests.

All cabinets have rustproof interior and exterior surfaces of high-baked enamel on aluminum. Walls, ceilings and floors are fully insulated with styrofoam.

Controlled Environments' seed germinators maintain a minimum humidity of 95 per cent and can accommodate 30 trays totaling 106 square feet (9.94 m²). Completely portable, rustproof and easily cleaned, these seed germinators have a special by-pass system that eliminates compressor short-cycling ensuring longer life and temperature control within $\pm 0.3^{\circ}\text{C}$. Temperature and light control may be set to change automatically at predetermined times.

The company also designs and manufactures laboratory incubators, test chambers and controlled environment rooms. All Controlled Environments' products are assembled and tested before leaving the plant to assure customer satisfaction and operational efficiency.

CONTROLLED ENVIRONMENTS LTD.
661 Madison Street, Winnipeg 21, Manitoba, Canada



Diamount's styrene plastic biological models

giant size biological models

Giant size three-dimensional biological models from Diamount Corporation — scientifically correct and accurate in every detail — assist teachers to explain comprehensively the biological structure of cells.

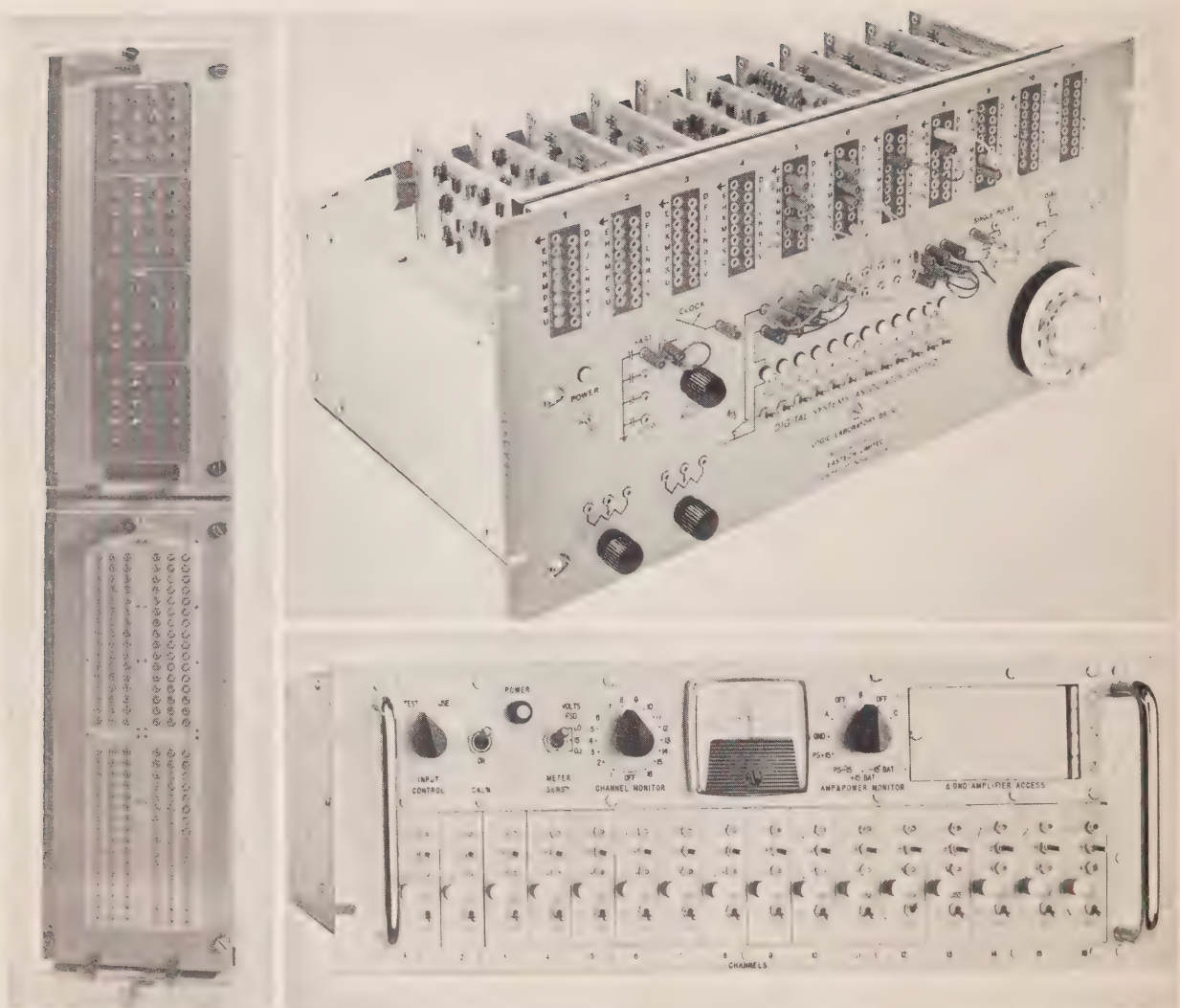
Produced with the assistance and co-operation of high school department heads, the models introduce a new concept in the visual presentation of cellular construction and function. Based on detailed electron micrographs, the fine cellular structures are magnified as high as 1,350,000 times for easier and more interesting explanation of the sections and functions of a single working cell.

Molded in sturdy, high impact styrene plastic and finished in bright, durable colors, Diamount's biological models are presented in two sets. The animal and the plant sets comprise five different biological units. The working cell model — 18 inches (457.2 mm) in diameter — has a cut-away section showing internal cell parts and their location. The four other models are enlargements — some measuring 22 inches (558.8 mm) — of various cell parts outlined in the cut-away. Each set is color coded, providing a simple and positive means of identification.

Realistically priced, Diamount's models may be purchased in sets, or any of the ten units may be obtained separately and added to as required. The units can be suspended from wall brackets or used on desks with special stands provided by the company. Additional stands are available at a nominal charge.

DIAMOUNT CORPORATION

P.O. Box 134, Station D, Toronto 9, Ontario, Canada



Top: Eastech's logic laboratory
 Bottom: Eastech's 16-channel solid state amplifier
 Left: Computer access unit by Eastech

logic laboratory, multi-channel amplifiers, computer access units

Eastech Limited, a thriving young Canadian company, specializes in developing new ideas into revolutionary product lines. Working closely with leading research and educational institutions and with prominent scientists, Eastech manufactures logic laboratory equipment, multi-channel amplifiers, and computer access units used for advanced scientific data processing.

The company's full line ranges from automated industrial process controls through electrical, electronic, hydraulic and air control systems, to oceanographic and other scientific instrumentation.

The logic laboratory is versatile and compact, ideally suited for student training demonstrations in principles of logic design or for experimental application. The simulation of large digital systems as projects in advanced courses is possible with additional module panels. Eastech also produces customized equipment for computer logic training. The logic laboratory units are manufactured exclusively for Digital Systems Associates Limited of Halifax, Nova Scotia.

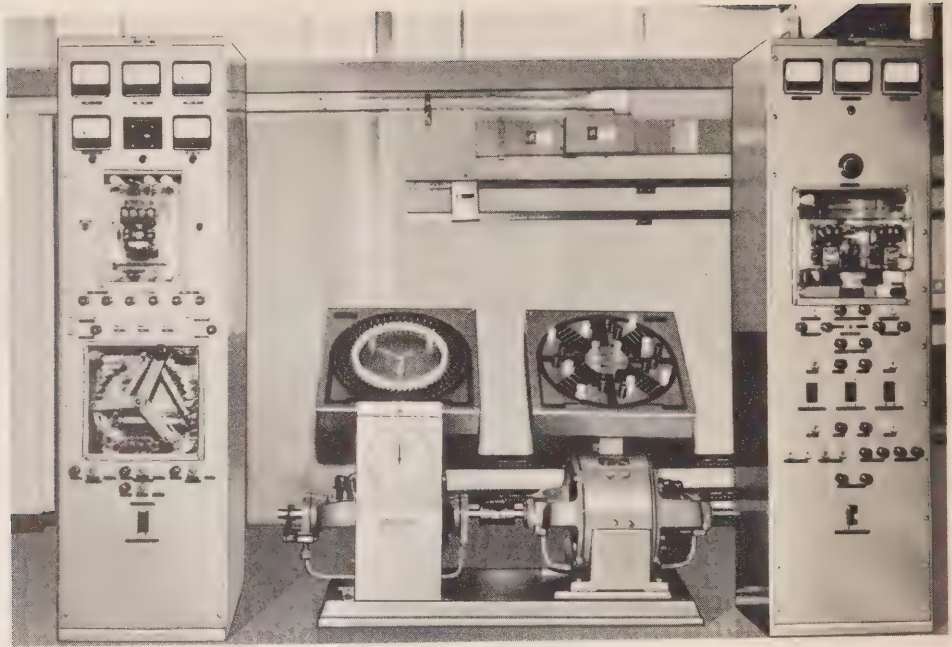
As part of a fully co-ordinated medical school physiological data acquisition system, the company's 16-channel solid state amplifier accepts inputs from a 16-electrode belt and a patient coding unit. The amplifier reproduces accurately the original physiological sensor signals for transmission to data storage or processing systems. Originally developed in co-operation with Dalhousie University's department of physiology and biophysics for heart study, the amplifier can be used for other medical purposes.

Many of Eastech's computer access units are used in a new medical center system for on-line transmission or storage of scientific data in digital or analog form. Outputs from several laboratory instruments may be plugged into channel receptacles connected directly to a central computer. The units may be mounted on wall or ceiling.

EASTECH LIMITED

P.O. Box 490, Windsor, Nova Scotia, Canada

Telex: 014-4051



Edwards' slip ring generator set with control panels and dynamometer



Edwards' Adaptalab-equipped electrical shop

electrical teaching apparatus

Edwards of Canada Limited has the distinction of producing precision-made electrical instruction equipment that is setting the standard in technical schools throughout North America.

Sold under the Adaptalab label, Edwards' rotating equipment has two outstanding features. While performing exactly like standard equipment, it allows easy access to all working parts, and permits experimentation that is either impossible or extremely difficult to carry out on conventional equipment.

The company's motor generator sets have open frames with removable guards for easy identification of internal components by students. An external study panel permits modification of the internal connections.

Commutators, brushes and bearings on dc machines and slip rings on ac machines are readily accessible. All Edwards' machines are powered by 5 hp motors. For functional efficiency, rotating equipment is mounted on a fixed base assuring complete safety for even the most inexperienced student.

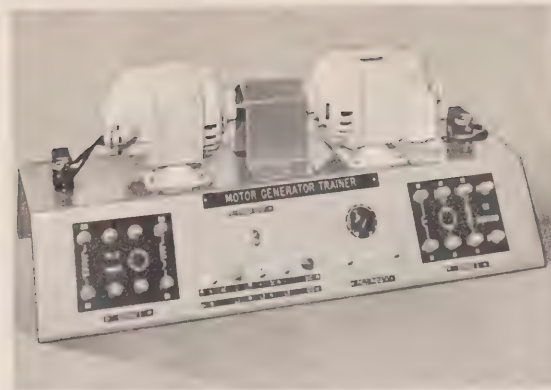
Advice from experienced technical classroom instructors across Canada helped Edwards design the Adaptalab range. Enthusiastic endorsement by instructors in more than 100 vocational schools where the company's equipment is used attests to its efficient operation. The instructors also co-operate with Edwards in a constant review of the equipment so that it always conforms to latest educational requirements and engineering techniques.

The Adaptalab range includes motor generator sets; control panels and auxiliary equipment; individual and classroom power supplies; power distribution panels and power outlets; instructors' demonstrators; experimental apparatus and storage unit.

Comprehensive manuals explaining Adaptalab rotating equipment and outlining classroom experiments are supplied to instructors using Edwards products.

EDWARDS OF CANADA LIMITED

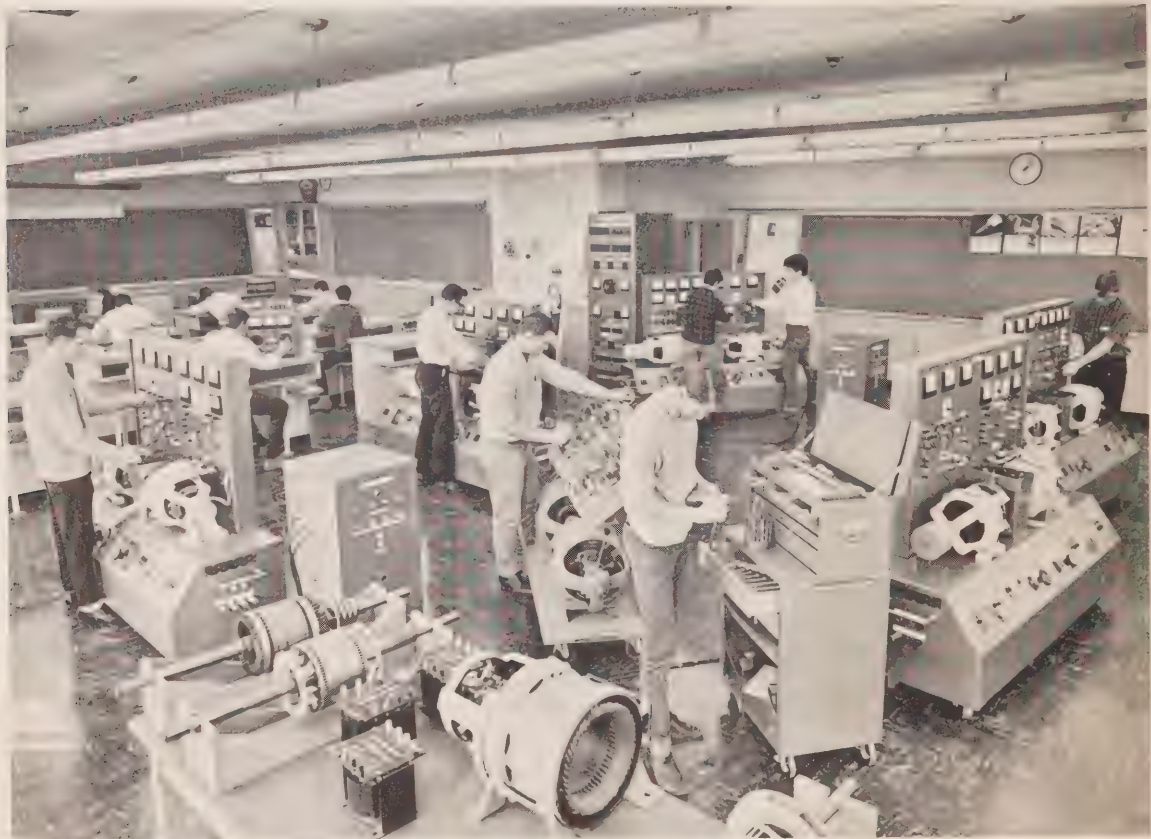
Owen Sound, Ontario, Canada



Electrolab motor generator trainer



Electrolab refrigeration system demonstrator



Complete Electrolab electrical laboratory

electric teaching systems

Established at the height of an unprecedented expansion in technical and vocational education in Canada, Electronic Controls Limited specializes in the production of technical equipment and teaching systems specifically designed for students. The basic designs are suitable for laboratories and shops in high schools, trade schools, technical institutes, community colleges and universities.

Now used in more than 300 of these educational institutions throughout the world, the company's products — sold under the Electrolab label — are designed to achieve maximum results. Each course is a complete package.

Laboratory demonstration equipment, power distribution systems, laboratory instrumentation, refrigeration, air conditioning and heating equipment — all have contributed effectively in training technicians to fill the ever-increasing number of jobs required by a developing industrial and automated society.

Electronic Controls' electrical and electronic programs have been continuously refined and expanded. The motor-generator trainer accepts completely interchangeable motors, generators, alternators, electromagnetic brakes, plugging switches and other elements, all fitted with identical coupling and mounting dimensions. A complete program for electrical rotating equipment theory and test can be easily, logically and economically taught on this unit.

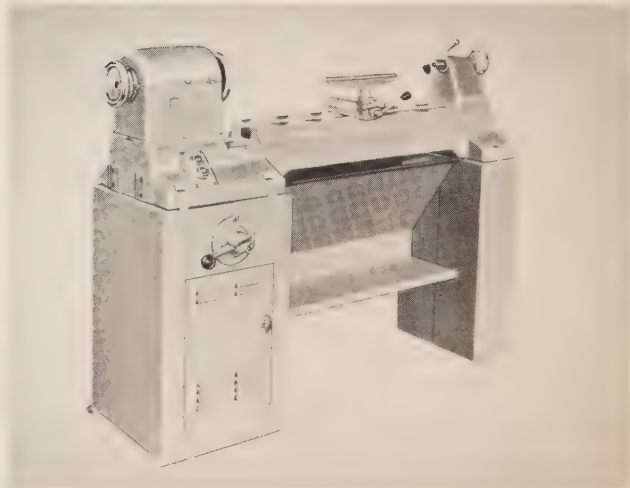
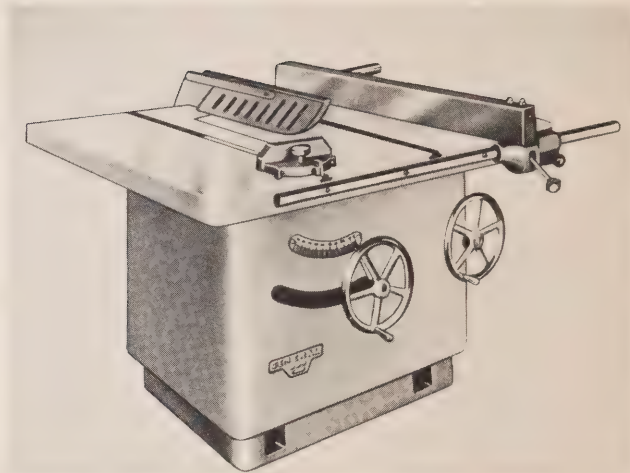
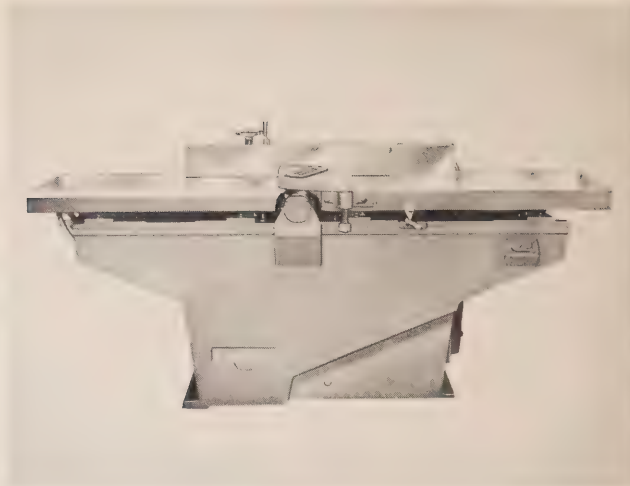
The refrigeration demonstrator is a ready-to-run mechanical system designed to show clearly the principles and operation of a complete refrigeration cycle in action.

The Electrolab line includes equipment and teaching systems in electrical, electrical-electronics, industrial physics, science, instrumentation, refrigeration, air conditioning and heating. All courses provide comprehensive teaching and training facilities for theoretical and practical studies.

Every product is shipped pre-wired, requiring only external connections, and carries a one-year warranty.

ELECTRONIC CONTROLS LIMITED

11 Water Street, Belleville, Ontario, Canada



*Top: Model 880 jointer and planer by General Manufacturing
 Middle: General Manufacturing's model 550 tilting arbor saw
 Bottom: General Manufacturing's model 260 woodworking lathe*

woodworking machines

Exacting performance, safety and durability are three outstanding features of woodworking machines produced for technical schools by General Manufacturing Company Limited.

The company's products, used by professional woodworkers for 25 years, rank with the best woodworking equipment manufactured anywhere and will withstand harsh treatment from inexperienced students.

Every safety feature has been incorporated in the Model 260 12-inch (304.8 mm) woodworking and metal spinning lathe: removable handwheels, push button control and a fully enclosed belt and pulley. Sturdily built for maximum rigidity, the drive mechanism is completely covered to protect the operator from moving parts.

Available with four speeds of 600 to 2,800 rpm or variable speeds from 375 to 3,300 rpm, the model turns 38-inch (965.2 mm) stock between centers. Its spindle is precision ground for perfect running alignment and balance. The quick-locking tool rest assembly is chilled to prevent marring and reduce wear on the guiding lip.

The General 14-inch (355.6 mm) tilting arbor saw for ripping, cross-cutting, mitering, dadoing and molding is highly accurate even on a production basis.

This highly efficient machine features a self-aligning, rapid-set, micro-adjusting rip fence that locks at both ends by a single lever movement and a massive table fully ribbed to prevent distortion. The saw spindle is mounted on sealed, lubricated-for-life ball bearings, and the splitter-mounted guard has anti-kickback fingers.

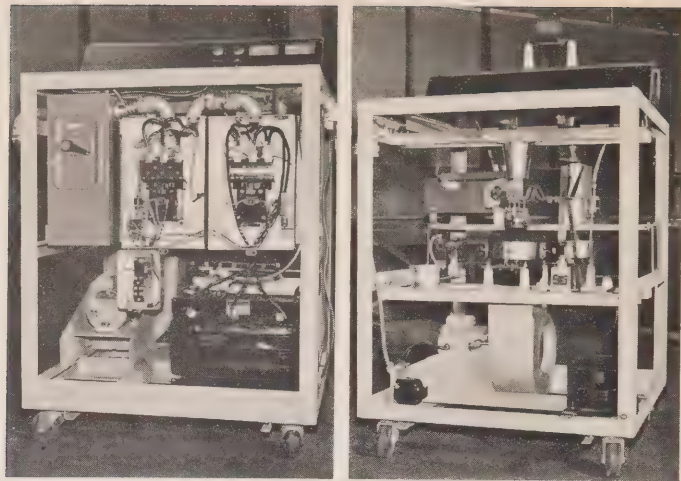
Model 880 jointer and planer — cast in one strongly ribbed piece — will produce perfectly smooth, straight edges on 16-inch (406.4 mm) lumber and can also be used for rabbeting, beveling and chamfering.

An alloy steel cutter-head of safety-round construction is grease lubricated to assure long life and trouble-free operation.

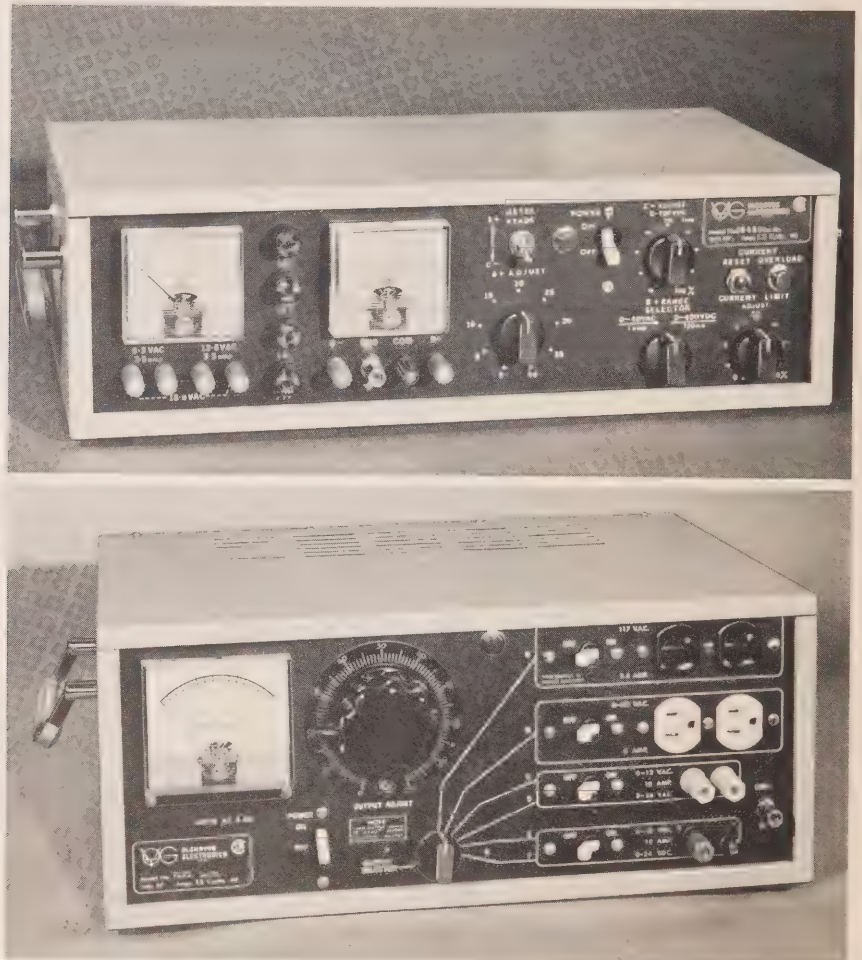
General Manufacturing, interested in establishing agencies throughout the world, also produces planers, mortisers, shapers, disc and belt sanders and drill presses.

GENERAL MANUFACTURING COMPANY LIMITED

835 Cherrier Street, Drummondville, Quebec, Canada



Model 544-5 power supply and RF generator



Glenayre's high and low voltage power supplies

power supplies, technical training aids

A comprehensive line of electrical and electronic educational equipment is produced by Glenayre Electronics Ltd. whose directors have been active in the communications industry in Canada for 35 years.

A full range of solid state, high and low voltage power supplies, regulated and unregulated, is available from Glenayre, in addition to numerous technical training devices. These include cathode ray oscilloscopes, solenoids, potential dividers, galvanometers, motor generator trainer units and electronic kits. Schematic diagrams on the faces of some instruments facilitate training.

Glenayre also produces a variety of electrical and electronic equipment including model 544-5 power supply and RF generator for exciting lasers and other requirements.

The company has a reputation for quality and flexibility in providing custom-designed instrumentation for university laboratories. Products range from etched panels and printed circuits to sophisticated low frequency amplifiers operating from two to 40 cps. This instrumentation is being used by an international consortium for studying electromagnetic phenomena appearing between earth and the Van Allen belt.

Solid state power supplies designed, developed and manufactured by the company range from 0 to 1.5 volts at 10 amperes up to 0 to 5,000 volts at two amperes continuously variable. Glenayre also produces RF generators up to 10 kilowatts for laser application.

Its products are approved by the Canadian Standards Association and meet or exceed Canadian provincial department of education requirements. Features of most power supply units include a long-life anodized etched aluminum face plate, a complete manual and schematic, and provision for rack mounting.

An exclusive feature of one widely used model, the PS-98, is provision for one fixed and five continuously variable outputs which are available simultaneously under full load.

GLENAYRE ELECTRONICS LTD.

1138 Boundary Road, Vancouver 6, British Columbia, Canada



Guy-Chart Power-Pull



Guy-Chart Hook Kit



Guy-Chart Practi-Jack

automotive body repair equipment

Guy-Chart Tools Limited specializes in auto body repair equipment of advanced design which is widely used in technical and vocational schools and for on-the-job training throughout Canada.

The company's extensive range of tools is preferred equipment in hundreds of body repair shops across Canada and is exported in quantity to the United States, Britain, The Netherlands, the Philippines and the West Indies.

A particularly versatile tool that can be used for instruction on most aspects of body repair work is the Guy-Chart Power-Pull. An exclusive feature is a time-saving vertical lift that can handle up to 3,000 pounds (1,361 kg) using bumper hooks and a powerful tri-cup suction assembly. A center pull rotates full circle and locks in any position.

Three different, easy hook-ups give three separate speeds of operation allowing perfect control for light, delicate sheet metal work. Continuous pull, giving a range of capacities of up to 40,000 pounds (18,144 kg) may be used with any of the three hook-ups. Maximum safety for the operator is assured through stabilizer and anti-backlash protection and a compression bar that provides perfect anchoring for the full width of the vehicle.

Another outstanding sheet metal tool from Guy-Chart is the push-pull Practi-Jack. It adjusts to the work space in seconds, has a capacity of up to 3,000 pounds (1,361 kg) and will pull up to six feet (1.8 m). The exclusive, simple to use chain hoist may be fitted with an optional tri-cup suction head.

Snap-in connections replace threads in this tool which will push or pull from a nut or a hole as small as $\frac{3}{8}$ inch (9.5 mm).

Other Guy-Chart equipment includes anchor pots, bumper hook assemblies, chain shorteners, "C" hook assemblies, dent puller kits and a complete tool board body repair kit.

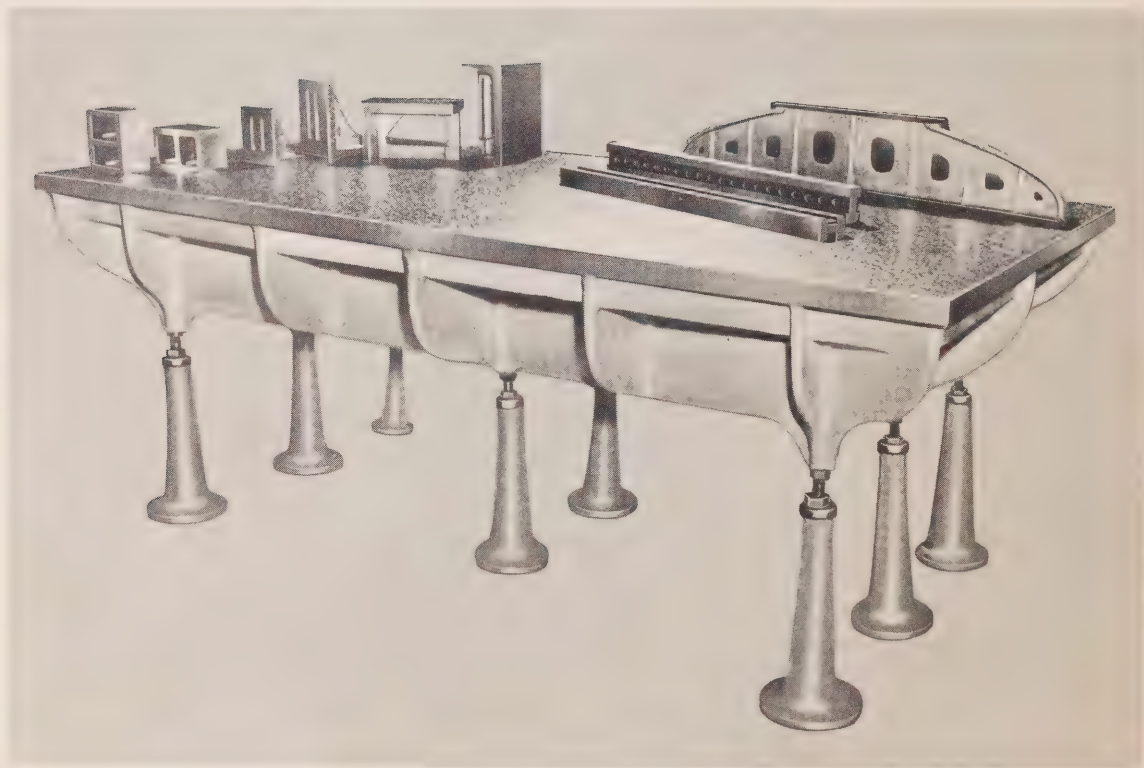
GUY-CHART TOOLS LIMITED

16 Malley Road, Scarborough, Ontario, Canada

Cable: VULCAMOLD CANADA

Cable: EUREXIMPORT NETHERLANDS

Telex: 14483



IXL surface plates and associated equipment

precision checking equipment

IXL Manufacturing Company Ltd. has been supplying precision checking and control equipment to Canadian technical and vocational schools and industrial training, quality control and research centers since 1935.

The company specializes in surface plates of semi-steel and granite for horizontal checking produced to very fine tolerances. For example, where the measurement is required to be accurate within the 2.54 to 25.4 micron range, the IXL semi-steel plate can be manufactured to within 2.54 microns. For ultimate precision, the company produces granite plates with a top accuracy surface of 0.635 to 1.27 microns.

Plates for school use range from 12 by 18 inches (304.8 by 457.2 mm) to 36 by 48 inches (914.4 by 1,219.2 mm). Larger sizes are available for specific research and training purposes.

Close-grained semi-steel used in IXL plates is heat treated to eliminate internal stresses. Maximum strength, stability and long-lasting accuracy are achieved through heavy deep ribs and three to eight-point support construction on the underside. A micro-adjuster on the table legs provides perfect alignment.

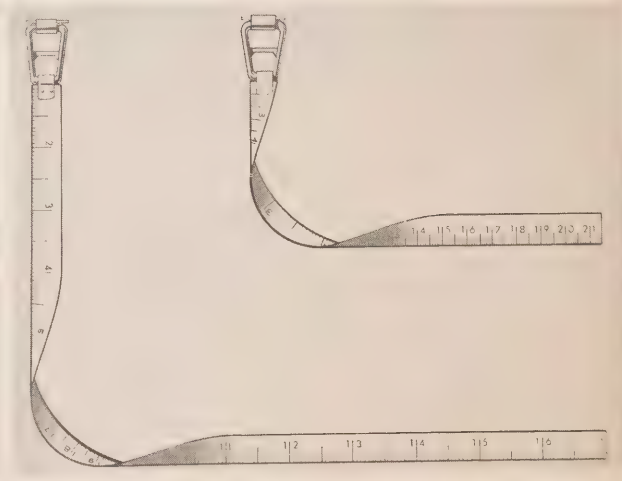
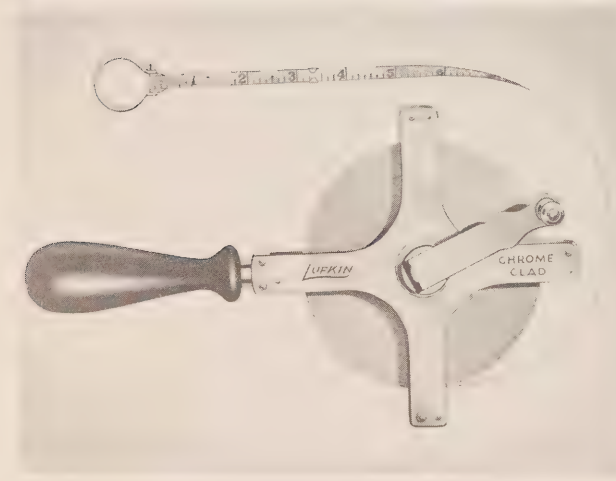
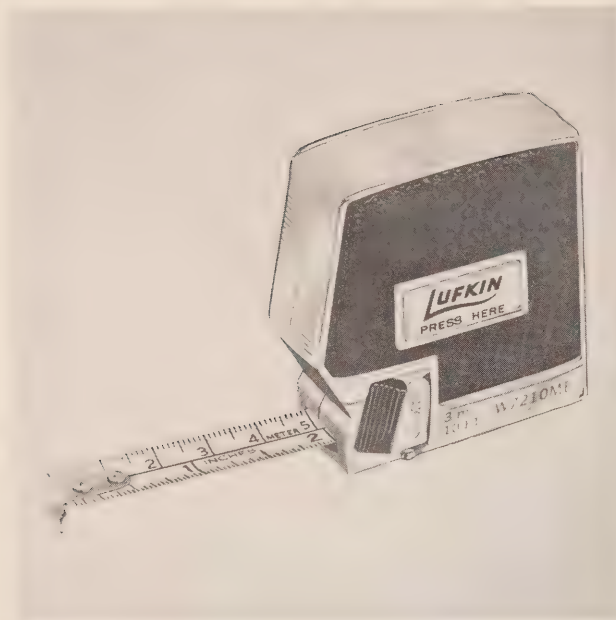
The company's granite plates are made from high quality, uniform, close-grained, quartz-balanced granites. They have a high compressive strength and an 80 Rockwell C hardness.

Other IXL equipment for use with surface plates includes bridge type straight edges and straight-edge parallels, used in checking machine beds, and set-ups for use with production machinery and for fast check of any flat surface.

IXL also manufactures various types of angle plates for checking vertical precision and precision squareness of tools, dies and many other products.

IXL MANUFACTURING COMPANY LTD.

275 Kipling Avenue South, Toronto 18, Ontario, Canada



All-purpose Lufkin rules and tapes

measuring tapes and rules

Since 1907, The Lufkin Rule Company of Canada Limited has specialized in the production of tape rules, long steel tapes, woven tapes and folding rules. Well equipped with modern machines and up-to-date research and finishing facilities, this enterprising company has steadily increased its business until now it is Canada's leading manufacturer of measuring devices. Lufkin currently exports to more than 50 countries throughout the world.

A pioneer in the design, development and production of measuring devices, Lufkin offers more than 900 items which meet the many requirements of industry, surveyors, home users and educational institutions.

Each Lufkin product reflects the firm's many years of experience in fine tool-making. Meticulous scrutiny by company inspectors maintains Lufkin's worldwide reputation for products of unsurpassed quality, design and performance.

The company's full line of tapes and rules, ranging in length from 6 feet up to 500 feet (1.8 to 152.5 m) and in widths of $\frac{1}{8}$ to $\frac{3}{4}$ of an inch (3.175 to 19.05 mm) have English or metric graduations or a combination of the two for countries using both measuring systems.

The tapes and rules are available in chrome clad, white clad, nickel-plated or nubian black finishes. A final epoxy coating of plastic is added to all company products to provide additional protection against wear and abrasion.

Illustrated catalogues are available from the company for more detailed information on the complete range of Lufkin's products.

THE LUFKIN RULE COMPANY OF CANADA LIMITED

164 Innisfil Street, Barrie, Ontario, Canada

Cable: LUFKIN

Telex: 610-392-0202



Penzer's electrical laboratory distribution system and experimental equipment

electrical power control equipment

Penzer Products Limited, established in 1960, specializes in the design and manufacture of electrical distribution and experimental equipment, with a range of up to 15,000 volts, for schools, colleges and industry.

The company also manufactures an extensive line of metal fabricated products used with this equipment, such as cabinets, troughs, special control cabinets and consoles for control and metering of process equipment, machine tools and electrical generating equipment.

It has developed standard distribution systems employing variable and fixed ac and dc supplies for electrical, electronic, physics and chemistry laboratories.

Panels fabricated and wired by Penzer are approved by the Canadian Standards Association (CSA) and are guaranteed for one year. A complete set of patch cords is included with every unit. Equipment can be designed to customer requirements.

A wide range of power supplies is available from Penzer, regulated or non-regulated, ac or dc, and employing the latest semi-conductor technology.

Desk units are available in flush or cabinet style with receptacles of the five-way type, or for higher ranges, the pin and socket type. Included are units for combination electrical-electronic shops.

The instructor's console forms the heart of the Penzer system. It is available in many variations from a basic electricity laboratory to an advanced communications laboratory.

The company conducts careful and continuous studies to determine up-to-date requirements for equipment to support experiments in educational institutions. As a result, valuable information is constantly available to customers on basic designs for safe, flexible and economic systems and equipment.

PENZER PRODUCTS LIMITED

P.O. Box 361, St. Catharines, Ontario, Canada



Sharpe's CG-2 gravity meter



Sharpe's model AV-9-LM language laboratory headphone/microphone

geophysical instruments and headphones

Precision instruments and systems for geophysical investigations, designed and developed by an experienced staff at Sharpe Instruments, are recognized by mining and hydrological engineers the world over for their extreme accuracy, stability and sensitivity. These instruments are widely used in poly-technical institutes and universities to teach earth sciences.

Sharpe also manufactures high quality earphones with excellent acoustical characteristics for use in telecommunications, educational establishments and stereophonic recreational listening.

Engineered to meet or exceed rigid specifications, model AV-9-LM language laboratory headphone/microphone is Sharpe's newest entry in the audio educational field.

The headphone, with less than 1 per cent distortion, has foam seals that enclose the ear ensuring maximum ambient noise attenuation. Liquid-filled ear seals are optional. A miniaturized, noise canceling, dynamic microphone is protected by high-impact Cycloc to withstand classroom tampering and abuse. The microphone, joined at the ear cup by a 360-degree stainless steel boom assembly with no visible wire connections, has an impedance of 200 ohms.

The company's line of CG-2 gravity meters has highly dampened beam systems providing special temperature compensation. The CG-2 quartz system gravity meter is available in two models — the prospector and the geodetic. Both feature direct digital read-out, miniscule long term drift, a high degree of temperature stability and levels that are deeply inset to reduce temperature effects.

Sharpe Instruments also produces transistorized magnetometers and a number of sophisticated electromagnetic, electrical and induced polarization measuring systems for base metal exploration. The company's products are used in more than 60 countries around the world.

SHARPE INSTRUMENTS

A Division of Scintrex Limited

79 Martin Ross Avenue, Downsview, Ontario, Canada



SKIL'S Skilsaw power saw



SKIL'S newest portable power drill

portable power tools

SKIL Corporation (Canada) Ltd., well-known Canadian manufacturer of portable power tools, produces a wide range of woodworking and metalworking vocational shop equipment.

Originators of the first portable power saw, SKIL Corporation is constantly improving its line of tools by designing new time and labor-saving devices. The latest of these imaginative developments is a special speed control system used in the firm's hand drills. With Trigger Speed Control — a silicon control rectifier in the trigger switch changes alternating current to bursts of direct current — the operator can adjust bit speed by varying the pressure on the trigger.

This new Trigger Speed Control — now incorporated in SKIL's standard, heavy duty and reversing hand drills — comes in $\frac{1}{4}$, $\frac{3}{8}$ and $\frac{1}{2}$ -inch (6.3, 9.5 and 12.7 mm) chuck sizes.

Among the more than 40 different power tools manufactured by SKIL Corporation are hand drills, circular hand saws, portable jig saws, reciprocating saws, belt sanders, vibrating orbital sanders, disc sanders and grinders. All SKIL products are tested before leaving the plant to assure customers the finest in manual training tools.

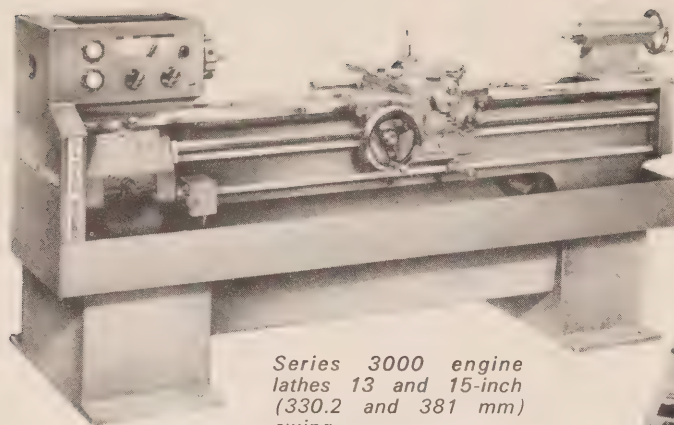
The company's portable power tools have received favorable acceptance in the United States, Australasia, The Netherlands and in Britain.

To maintain its leadership in the field of portable power tools, SKIL conducts extensive research and development programs resulting in products of the highest quality and operational efficiency.

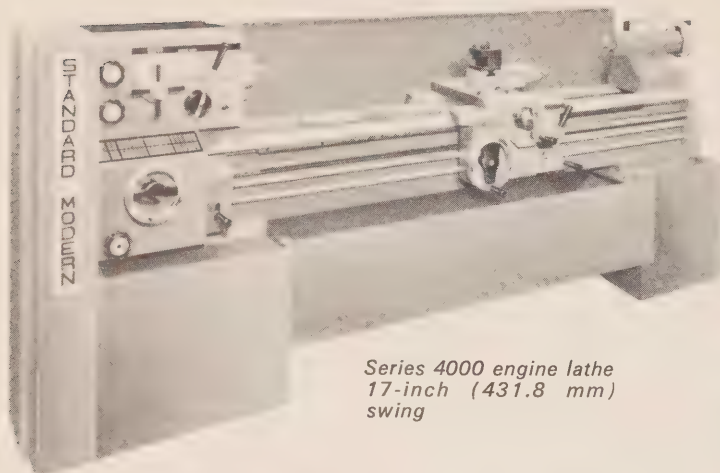
SKIL CORPORATION (CANADA) LTD.

1190 Caledonia Road, Toronto 19, Ontario, Canada

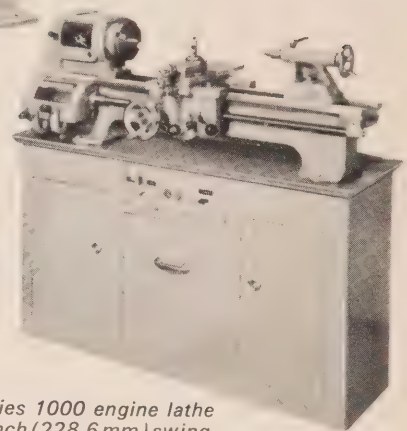
Telex: 02-29177



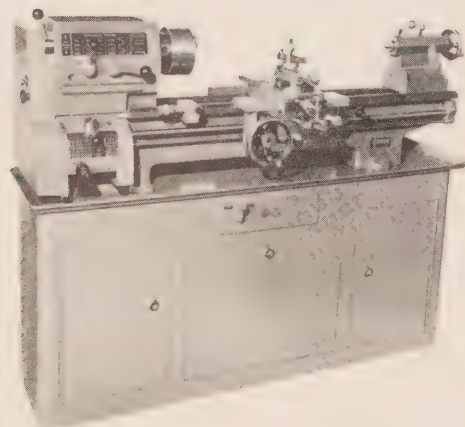
*Series 3000 engine
lathes 13 and 15-inch
(330.2 and 381 mm)
swing*



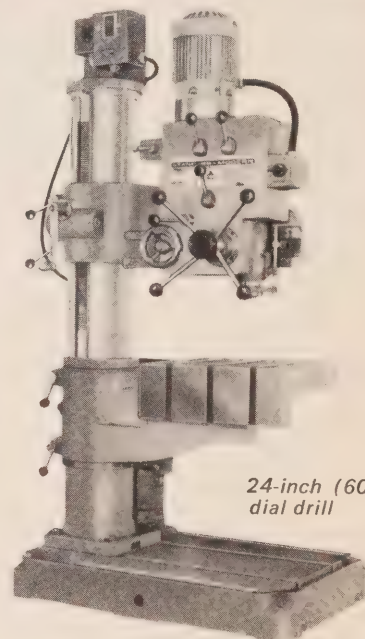
*Series 4000 engine lathe
17-inch (431.8 mm)
swing*



*Series 1000 engine lathe
9-inch (228.6 mm) swing*



*Series 2000 engine
lathes 11 and 13-inch
(279.4 and 330.2 mm)
swing*



*24-inch (609.6 mm) ra-
dial drill*

machine tools, lathes, radial drills, metal cutting machinery

One of Canada's largest machine tool manufacturers, Standard-Modern Tool Company Limited, supplies machine tools to educational institutions throughout Canada and in other countries as well.

The company produces a wide range of engine lathes, radial drills and special-purpose machinery and exports a substantial part of its production. Markets include the United States, Britain, Australia, Malaysia, India and Pakistan.

In the educational field, its engine lathes are used extensively to complement machine shop teaching from elementary levels through to university. The range runs from a model with a nine-inch (228.6 mm) swing to a 17-inch (431.8 mm) model. All lathes are manufactured to Schlesinger standards of accuracy.

The company's latest model, the series 4000 17-inch (431.8 mm) engine lathe, integrates important features of previous designs into one brand-new machine tool.

It provides a wide range of speeds in geometric progression. The totally enclosed feed box has 54 feeds and 54 threadleads without pickoff gears, all instantly available through dial selectors, while the apron is double walled with interlocked controls. The nine dial feed selections may be changed through the handwheel while the machine is running. Longitudinal and cross feeds are identical. The leadscrew is completely protected against overload and the rugged tailstock is equipped with lever type bed clamping. Four optional speed ranges are available.

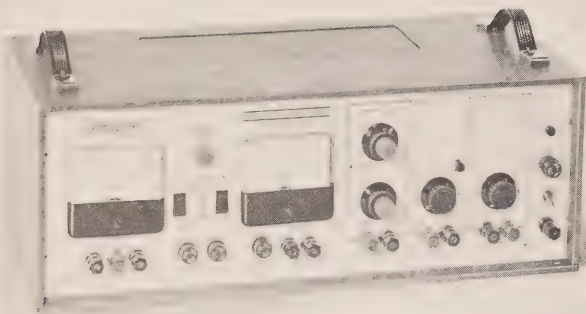
Standard-Modern's popular 2000 series 11 and 13-inch (279.4 and 330.2 mm) swing lathes give optimum performance at moderate cost. Precision cut gear bearings, designed for maximum overload, are continuously lubricated to maintain extreme accuracy under operation. The 1000 series 9-inch (228.6 mm) Utilathe — with all castings subject to wear made of high tensile iron — is unbeatable for all-round utility and long, trouble-free service.

The enthusiastic comments of school instructors have proved that both these units are ideally suited for instructional use.

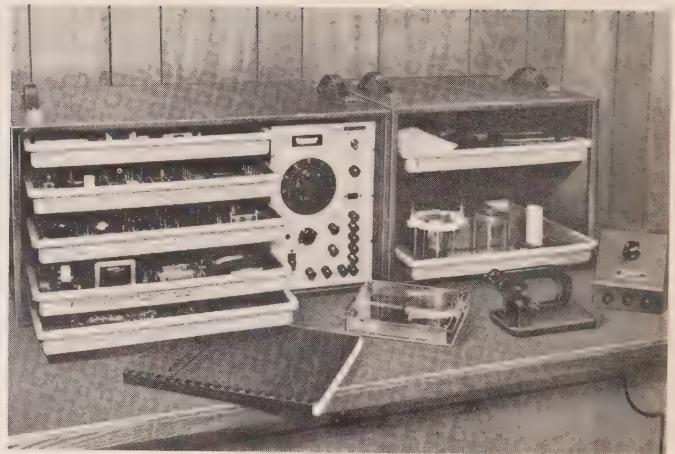
Standard-Modern products and services include rebuilding, contracting and manufacturing components and assemblies for nuclear reactors. They are backed by highly competent machine tool designers and engineers and a staff of machine tool fitters and operators with long service in the industry.

STANDARD-MODERN TOOL COMPANY LIMITED

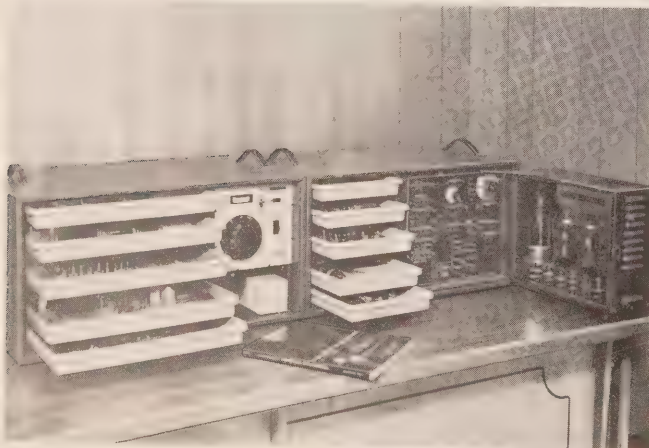
69 Montcalm Avenue, Toronto 10, Ontario, Canada
Cable: STANMODCO
Telex: 02-29421



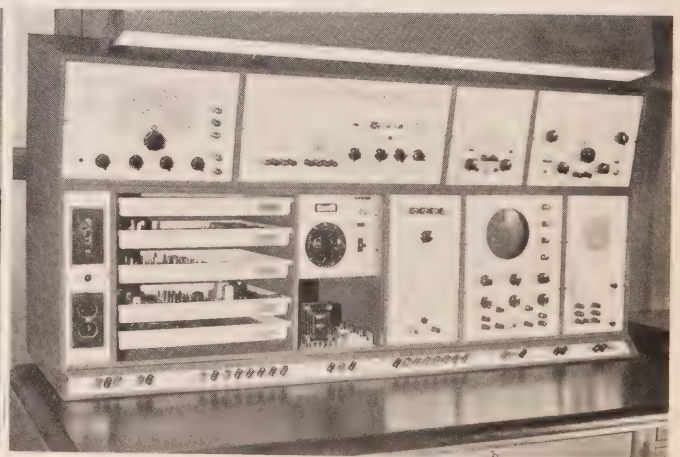
Stark Electronic's PS-506 solid state power supply



Model 500 electricity and electronics training kit by Stark



Model 700 industrial electronics training kit by Stark



Stark student console, model S-1020

electronic teaching aids

Teaching aids to help students learn the complexities of modern technology — this is the contribution of Stark Electronic Instruments Limited to the ever-advancing field of education.

For many years Stark has been a leading Canadian manufacturer of electronic test equipment, electrical and electronic teaching systems, physics apparatus and scientific instruments that meet the requirements of industry, educational institutions and the Armed Services. Stark was recently awarded a design of merit by the Canadian government-sponsored National Design Council.

After consultation and advice from members of the teaching profession throughout Canada, Stark makes equipment especially designed to help students study the intricacies of electronics and related fields. This collaboration between industry and educators has resulted in electronic instruments fashioned for industrial arts, general physics, Berkley physics, intermediate physics and electricity and electronic programs.

The Stark teaching systems are excellent examples of Canadian engineering and manufacturing competence in the company's new concept for teaching electronics. Students learn basic electronic principles by building circuits from diagrams supplied with the company's equipment.

Among the typical Stark models used by teachers and students for laboratory experiments are audio and signal generators, voltmeters, rheostats and oscilloscopes. Stark's new Model S-1020 — electricity-electronics student console — contains numerous instruments and accessories built into one compact, carefully designed and engineered cabinet. Illuminated from the top, the units are independently controlled and may be removed for servicing. Stark gives the users a choice in selecting units to equip the console as required.

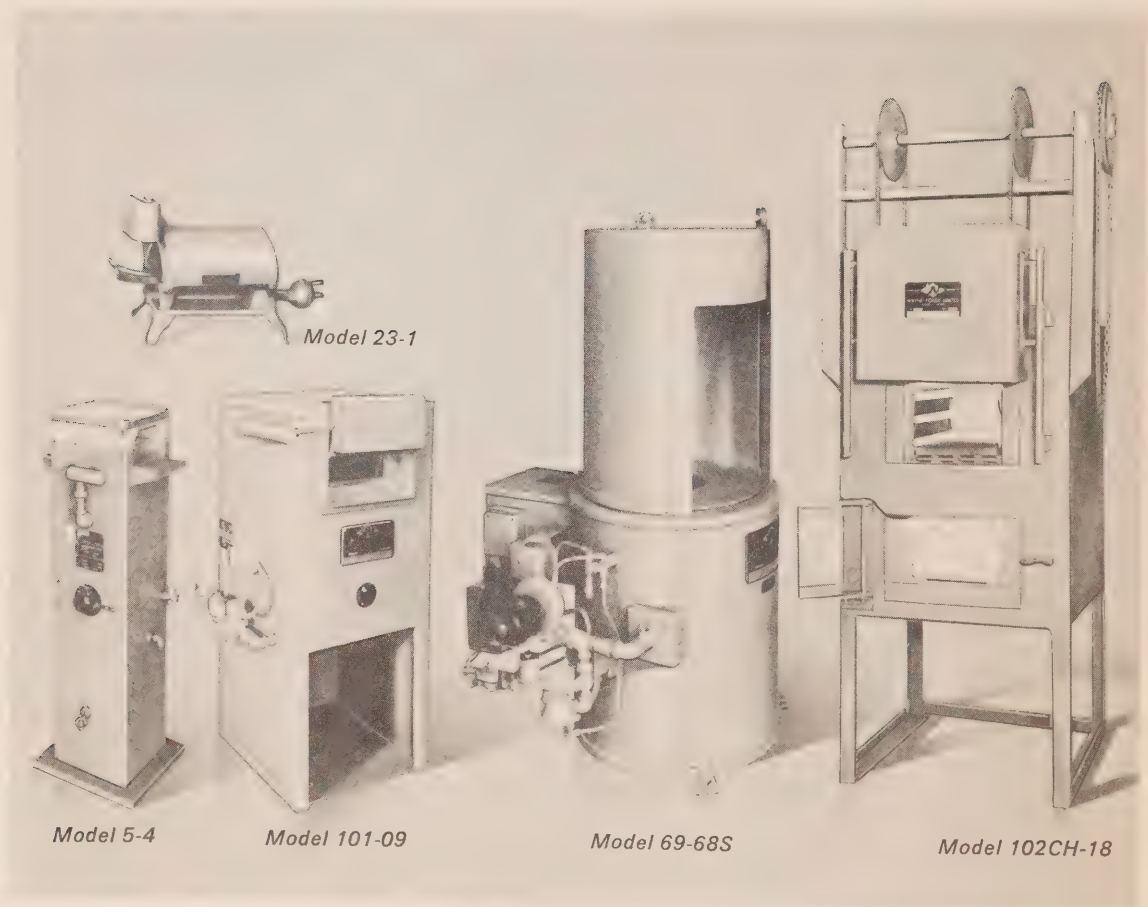
The company will supply a complete list of its products on request.

STARK ELECTRONIC INSTRUMENTS LIMITED

180 Station Street, Ajax, Ontario, Canada

Cable: STARKEKX

Telex: 02-21332



Forges and furnaces by Wayne Forge Limited

heating equipment for educational purposes

Industrial heating equipment specifically designed for teaching basic metallurgy and advanced heat treatment is a specialty of Wayne Forge Limited. Small in dimensions but highly efficient in operation, the equipment permits singular training in each principle of these trades.

Wayne Forge Limited has been a leading Canadian designer and manufacturer of industrial heating products since 1915, and its equipment is now used throughout Canada, Ceylon, Malaysia, Jamaica and many other countries.

The training units — soldering iron, heat treat and pot furnaces, and forges — operate on propane, butane, or natural gas. They are fitted with fully dependable safety devices and combustion air blowers.

The appliances are highly refined in detail, promote operator comfort, and some can be adapted to more than one use.

An example is the Model 5-4 forge. This has a heated area 7 inches (177.8 mm) long and 6 inches (152.4 mm) wide for forging at temperatures up to 2,400°F (1,316°C). Standard end plugs and hearth turn it into a small heat treat furnace. With optional accessories it can be converted to melt non-ferrous metals and used for pot hardening and light brazing.

Another is the Model 102CH-18 Spasaver. This accommodates two electric furnaces in the floor space usually required by one regular unit. The furnaces, one on top of the other, each occupy 960 cubic inches (approximately 15,734.4 cm³). Temperature output ranges from 300°-2,300°F (149°-1,260°C).

For pre-heating and general heat treatment, Model 101-09 heat treat furnace combines fast heat-up, quiet operation and even temperature distribution, with output ranging from 300-2,000°F (149-1,093°C).

WAYNE FORGE LIMITED

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